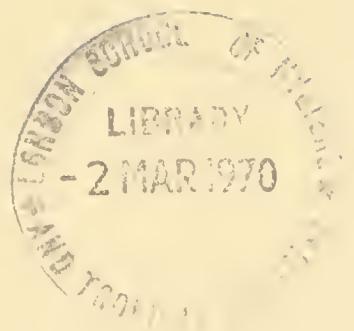






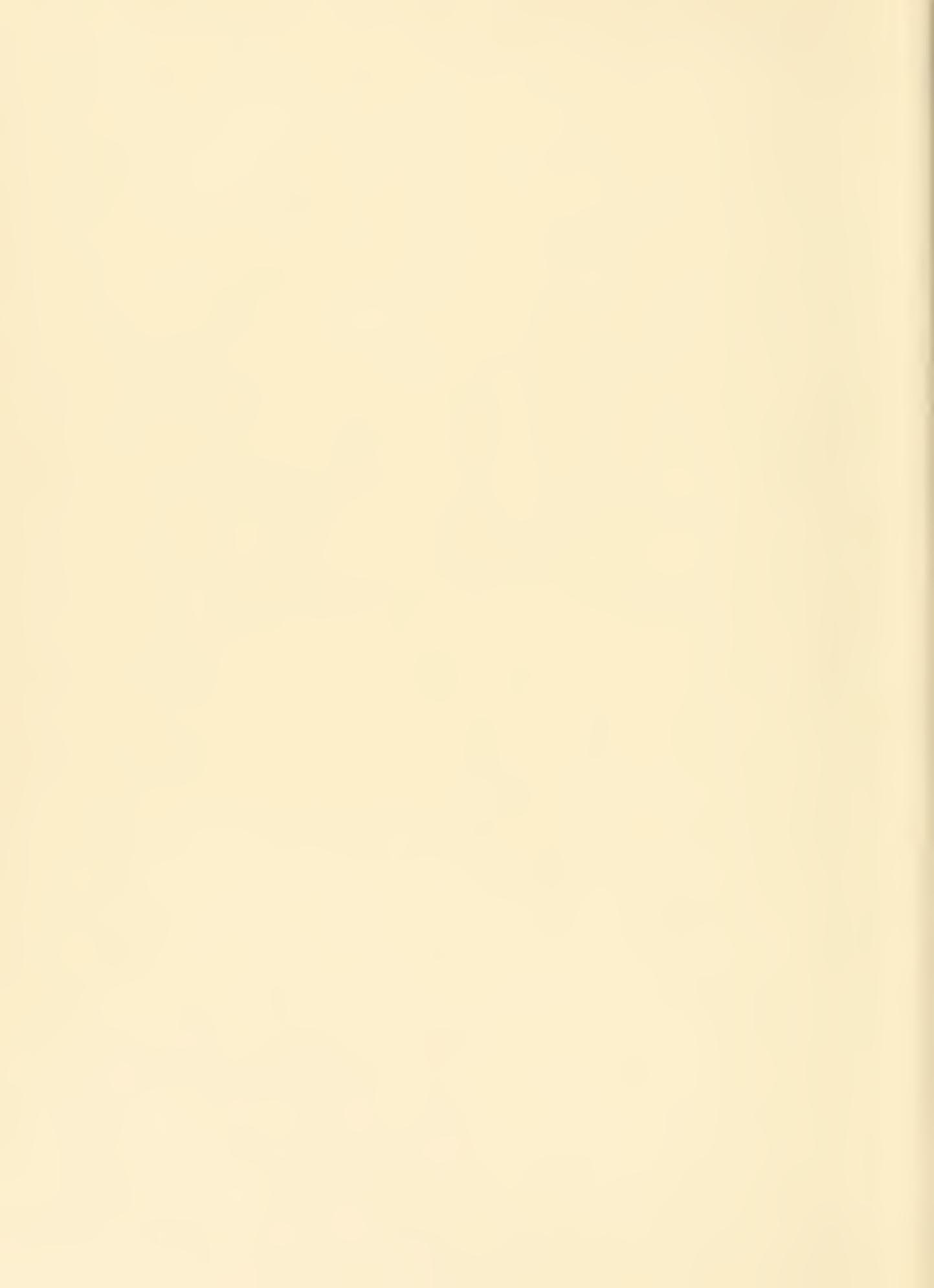
Digitized by the Internet Archive  
in 2018 with funding from  
Wellcome Library

<https://archive.org/details/b30155393>









*24LC41*

County Council of Shropshire.

---

**REPORT**

BY THE

**COUNTY MEDICAL OFFICER OF HEALTH**

ON THE

**VITAL STATISTICS AND SANITARY CONDITION**

**OF SHROPSHIRE**

**DURING THE YEAR 1912,**

INCLUDING A

**SUMMARY OF THE ANNUAL REPORTS OF THE DISTRICT MEDICAL  
OFFICERS OF HEALTH, AND A REPORT ON THE ADMINISTRATION  
OF THE MIDWIVES ACT.**

---

JAMES WHEATLEY, M.D., D.P.H.

HREWSBURY,

September, 1913.



County Council of Shropshire.

---

REPORT

BY THE

COUNTY MEDICAL OFFICER OF HEALTH

ON THE

VITAL STATISTICS AND SANITARY CONDITION

OF SHROPSHIRE

DURING THE YEAR 1912,

INCLUDING A

SUMMARY OF THE ANNUAL REPORTS OF THE DISTRICT MEDICAL  
OFFICERS OF HEALTH, AND A REPORT ON THE ADMINISTRATION

OF THE MIDWIVES ACT.

---

JAMES WHEATLEY, M.D., D.P.H.

SHREWSBURY,

*September, 1913.*

72086



**I N D E X.****To PART I.**

	PAGE		PAGE	PAGE	
Acute Poliomyelitis ..	27	Hospital Accommodation ..	33	Parturition (Accidents and Diseases of) ..	27
Administrative County ..	6	House Accommodation ..	34	Phthisis ..	20
Anthrax Order, 1910 ..	53	House Refuse (Disposal of) ..	47	Poliomyelitis (Acute) ..	27
Antitoxin .. ..	17	Housing and Town Planning, etc., Act, 1909 ..	34	Pollution of Rivers ..	44
Bacteriological Examinations ..	30	Improper Clothing of Infants, etc. (deaths from) ..	14	Population ..	6—9
Births, Birth-rate ..	10—11	Infant Feeding (Teaching of) ..	56	Populations of Districts ..	6—9
Cancer .. ..	25	Infantile Mortality ..	13	Premature Births ..	14
Cancer (death-rates from) ..	25	Infectious Diseases ..	16	Preservatives in Foods ..	54, 55
Causes of Death ..	14	Infectious Diseases (Notification by School Teachers) ..	29	Privies (Conversion of) ..	43
Cerebro-spinal Fever ..	27	Inspection ..	53	Public Health (Tuberculosis) Regulations, 1912 ..	24
Closets (water) ..	43	Inquiries (Local Government Board) ..	45	Puerperal Fever ..	19, 58
Closets (pail or earth) ..	43	Isolation Hospitals ..	33	Rainfall ..	65
Confinements attended by Midwives .. ..	58	Local Government Board Inquiries ..	45	Refuse—House (Disposal of) ..	47
Consumption (Association for the Prevention of) ..	23	Males ..	6	Registrar-General ..	8
Cowsheds and Dairies ..	49	Marriages ..	9	Registration County ..	7
Dairies and Cowsheds Regulations .. ..	51	Maternity Benefit (National Insurance Act) ..	63	Rivers Pollution Act ..	44
Dairy Cattle (Inspection of) ..	49	Measles ..	17	Sanatorium for Consumptives ..	23
Deaths (chief causes of) ..	15	Meat Inspection ..	52	Scarlet Fever ..	16
Deaths, Death-rates ..	11	Medical Help (Notification of) ..	55, 56	Scavenging ..	47
Death-rates, crude and corrected ..	12	Medical Inspection of School Children ..	29	School Children (Inspection of) ..	29
Death-rates, factors for correcting .. .. ..	9	Midwives Act ..	55	School Closure ..	30
Dental Caries, Prevention of ..	27	Midwives, Inspection of ..	55	Sewage Disposal ..	45
Diarrhoea .. .. ..	19	Midwives, Lectures to ..	64	Sewage Disposal, Eighth Report of the Royal Commission on ..	46
Diphtheria .. .. ..	17	Midwives reported to Local Supervising Authority ..	62	Sewerage ..	44
Disinfection .. .. ..	32	Midwives (Supply of) ..	58, 63	Shropshire Nursing Federation ..	63
Disinfectors, Steam .. .. ..	32	Midwives (Training of) ..	63	Small-pox .. .. ..	16, 31
Drainage .. .. ..	44	Milk and Cream Regulations ..	55	Steam Disinfectors ..	32
Enteric Fever .. .. ..	18	Milk and Dairies Bill ..	51	Still-births (Notifications of) ..	55, 56
Enteritis .. .. ..	19	Milk Supply ..	49	Teaching of Infant Feeding ..	56
Errors of Feeding of Infants (Deaths from) .. .. ..	14	Milk (Tuberculous) ..	51	Tenements, Persons per ..	38
Excrement Disposal .. .. ..	42	Milk (Dirt in) ..	51	Tuberculosis ..	20
Factories and Workshops ..	53	National Insurance Act ..	22, 63	Tuberculosis (Compulsory Notification of) ..	66
Feeding and Care of Infants ..	56	Notification of Births Act ..	15, 29	Tuberculosis Dispensaries ..	22
Females .. .. ..	6	Notifications from Schools ..	29	Tuberculosis Order, 1913 ..	51
Flies, Prevention of .. .. ..	47	Nurses to visit Infectious Cases ..	17	Tuberculosis, Treatment of ..	22
Food and Drugs .. .. ..	54	Ophthalmia Neonatorum ..	26	Typhoid Fever .. .. ..	18
Health Visitors (employment of) .. .. ..	29			Vaccination .. .. ..	31
				Water Supplies .. .. ..	40
				Whooping Cough .. .. ..	17
				Workshops .. .. ..	53

**To PART II. (DISTRICT REPORTS).**

Atcham .. .. ..	67	Drayton .. .. ..	91	Shifnal .. .. ..	109
Bishop's Castle .. .. ..	71	Ellesmere, U. .. .. ..	93	Shrewsbury .. .. ..	111
Bridgnorth, U. .. .. ..	73	Ellesmere, R. .. .. ..	95	Teme .. .. ..	117
Bridgnorth, R. .. .. ..	75	Ludlow, U. .. .. ..	97	Wellington, U. .. .. ..	118
Burford .. .. ..	76	Ludlow, R. .. .. ..	98	Wellington, R. .. .. ..	120
Chirbury .. .. ..	77	Newport, U. .. .. ..	100	Wem, U. .. .. ..	121
Church Stretton, U. .. .. ..	79	Newport, R. .. .. ..	102	Wem, R. .. .. ..	122
Church Stretton, R. .. .. ..	81	Oakengates, .. .. ..	105	Wenlock .. .. ..	123
Cleobury Mortimer .. .. ..	84	Oswestry, U. .. .. ..	107	Whitchurch, U. .. .. ..	126
Clun .. .. ..	86	Oswestry, R. .. .. ..	108	Whitchurch, R. .. .. ..	129
Dawley .. .. ..	88				

TO THE CHAIRMAN AND MEMBERS OF THE PUBLIC HEALTH  
AND HOUSING COMMITTEE OF THE SHROPSHIRE  
COUNTY COUNCIL.

GENTLEMEN,

I have the honour to present my Annual Report for 1912.

The general arrangement of previous reports has been continued in the present one. The second part of the report is a condensed summary of the reports for the various districts. In the first part each subject is dealt with as affecting the whole County.

A report is given on the administration of the Midwives Act.

The following are the duties of County Medical Officers of Health as prescribed by the Order of the Local Government Board, dated July 29th, 1910:—

- “ (1) The Medical Officer of Health of the County shall inform himself as far as practicable respecting all influences affecting or threatening to affect injuriously the public health in the County. For this purpose he shall visit the several County districts in the County as occasion may require, giving to the Medical Officer of Health of each County district prior notice of his visit, so far as this may be practicable.
- “ (2) The Medical Officer of Health of the County shall from time to time inquire into and report upon the hospital accommodation available for the isolation of cases occurring in the County—
  - “ (a) of small-pox, and
  - “ (b) of other infectious diseases,
  - “ and upon any need for the provision of further hospital accommodation.
- “ (3) The Medical Officer of Health of the County shall communicate to the Medical Officer of Health of a County district within the County any information which he may possess as to any danger to health threatening that district.
- “ (4) The Medical Officer of Health of the County shall consult with the Medical Officers of Health of County districts within the County whenever the circumstances may render this desirable.

“ (5) If the annual or special reports of the Medical Officer of Health of a County district in the  
 “ County shall not contain adequate information in regard to—  
 “ (a) the vital statistics of the district,  
 “ (b) the sanitary circumstances and administration of the district, and  
 “ (c) the action taken in the district for putting in force the provisions of the *Housing of the Working Classes Acts, 1890 to 1909*,  
 “ the Medical Officer of Health of the County shall obtain from the Medical Officer of  
 “ Health of the County district such further information on those matters as the circum-  
 “ stances may demand.

“ (6) The Medical Officer of Health of the County shall, when directed by Us, or by the County  
 “ Council, or as occasion may require, make a Special Report to the County Council on  
 “ any matters appertaining to his duties under this Order.

“ (7) The Medical Officer of Health of the County shall as soon as practicable after the 31st day  
 “ of December in each year make an Annual Report to the County Council up to the end  
 “ of December on the sanitary circumstances, the sanitary administration and the vital  
 “ statistics of the County.  
 “ In addition to any other matters upon which the Medical Officer of Health may  
 “ consider it desirable to report, his Annual Reports shall contain the following sections :—  
 “ (a) A digest of all annual and special reports made by the Medical Officers of Health of  
 “ all County districts within the County.  
 “ (b) a section as to the isolation hospital accommodation available for each County district  
 “ and as to the steps which should be taken to remedy any deficiencies which may  
 “ exist.  
 “ (c) a section on the administration of the *Housing of the Working Classes Acts, 1890 to*  
 “ *1909*, within the County.  
 “ (d) a section on the *Water Supply* of the several County districts within the County ;  
 “ (e) a section on the *Pollution of Streams* within the County and as to the steps for the  
 “ prevention of pollution taken :—  
 “ (i) by the *Local Authorities*, and  
 “ (ii) by the *County Council* ;  
 “ (f) a section on the administration within the County of the *Midwives Act, 1902* ; and  
 “ (g) a section on the administration of the *Sale of Food and Drugs Act, 1875 to 1907*,  
 “ within that part of the County in which the County Council have jurisdiction  
 “ for the purposes of those Acts.

“ (8) The Medical Officer of Health of the County shall send to Us two copies of his Annual  
 “ Report and two copies of any Special Report ; he shall also send one copy of his Annual  
 “ Report to the Council of every County district in the County and shall send three  
 “ copies of any Special Report to the Council of every such County district affected by  
 “ the Special Report.”

I am, Gentlemen,  
 Your obedient Servant,

JAMES WHEATLEY.

COUNTY HEALTH DEPARTMENT,  
 COUNTY BUILDINGS,  
 September, 1913.

**PART I.**  
**THE ADMINISTRATIVE COUNTY.**

POPULATION.

The population of the Administrative County in 1901 was 239,783, and in 1911, 246,307. It is estimated to be 246,778 at the middle of 1912. The population of the combined Urban and Rural Districts is slightly in excess of that of the Administrative County, as the Rural District of Shifnal administers a small portion of Staffordshire. In 1901 it was 240,606, and in 1911, 247,105. It is estimated to be 247,573 at the middle of 1912.

At the 1911 census the number of males in the County was 121,834, and the number of females 124,472, or an excess of females over males of 2,638, the ratio of females to males being 1,022 to 1,000. In the whole of England and Wales the ratio was considerably higher, viz., 1,068 to 1,000. It was the lowest in the mining counties and highest in the residential counties. The excess of females over males in the United Kingdom at the census 1911 was 1,179,276. This excess is notwithstanding the larger number of males born. During the last 50 years the proportion of boys born has been 1,041 to every 1,000 girls, and during the last 20 years about 1,037 to 1,000.

The initial excess of males rapidly disappears owing to a greater infantile mortality amongst them (excess nearly 25 per cent.). It seems probable that this excess is due to the lower initial vitality of male infants.

TABLE I.

DISTRICTS.	FAMILIES OR Separate Occupiers. 1911	POPULATION.		Increase or decrease of population in Intercensal Period.		Percentage increase or decrease.
		1901	1911	Increase.	Decrease.	
<i>Urban.</i>						
Bishop's Castle ..	360	1378	1409	31	—	+ 2.2
Bridgnorth ..	1346	6052	5768	—	284	— 4.7
Church Stretton ..	288	816	1455	639	—	+ 78.3
Dawley ..	1678	7522	7701	179	—	+ 2.4
Ellesmere ..	454	1945	1946	1	—	+ 0.05
Ludlow ..	1372	6373	5926	—	447	— 7.0
Newport ..	738	3241	3250	9	—	+ 0.3
Oakengates ..	2466	10906	11744	838	—	+ 7.7
Oswestry ..	2320	9579	9991	412	—	+ 4.3
Shrewsbury ..	6612	28395	29389	994	—	+ 3.5
Wellington ..	1721	7115	7820	705	—	+ 9.9
Wem ..	509	2149	2273	124	—	+ 5.8
Wenlock ..	3548	15866	15244	—	622	— 3.9
Whitchurch ..	1314	5221	5757	536	—	+ 10.3
Total Urban ..	24726	106558	109673	3115	—	+ 2.92

I. STATISTICS FOR 1912.

URBAN DISTRICTS.	Estimated population in 1912 upon which the rates are calculated.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				DEATH-RATES FROM VARIOUS CAUSES.					
		Nett.				of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of Age.		At all Ages.		Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases	Bronchitis.	Pneumonia (all forms).	Cancer.
		Uncorrected Number	Number	Rate.	Number	Rate.		Number	Rate per 1000 Nett Births.	Number	Rate.						
Bishop's Castle ..	1410	30	30	21.3	27	19.1	1	1	67	27	19.1	.0	4.96	.0	.71	.42	
Bridgnorth ..	5768	127	126	21.8	90	15.6	10	3	87	83	14.3	.35	.69	.35	1.56	.87	
Church Stretton ..	1500	23	23	15.3	24	16.0	9	6	87	21	14.0	.0	.67	.67	.0	2.0	
Dawley ..	7720	201	202	26.2	120	15.5	—	14	74	134	17.3	.0	1.30	.26	2.07	1.42	
Ellesmere ..	1953	33	32	16.3	26	13.3	7	—	2	62	19	9.7	.0	.51	.51	.0	
Ludlow ..	5866	141	135	23.0	86	14.7	19	5	44	72	12.2	.0	1.19	.51	1.02	.68	
Newport ..	3250	54	50	15.4	34	10.4	5	2	3	60	31	9.5	.0	.31	.0	1.85	
Oakengates ..	11875	311	312	26.2	119	10.0	—	16	24	76	135	11.3	.34	.34	.17	1.60	
Oswestry ..	10000	181	186	18.6	112	11.2	5	32	18	97	139	13.9	.10	1.60	.40	.60	
Shrewsbury ..	29521	652	667	22.5	416	14.0	64	55	48	72	407	13.7	.24	1.08	.14	.61	
Wellington ..	7905	193	187	23.6	105	13.3	13	8	15	80	100	12.6	.13	1.01	.51	.63	
Wem ..	2273	33	33	14.5	33	14.5	10	2	0	0	25	10.9	.88	.0	.76	.44	
Wenlock ..	15200	344	343	22.6	236	15.5	14	11	23	67	233	15.3	.13	1.05	.26	1.05	
Whitchurch ..	5810	119	116	20.0	96	16.5	5	3	9	78	94	16.2	.17	.86	.0	.86	
Whole of Urban Districts ..	110069		2442	22.2	1524	13.8	162	158	178	73	1520	13.8	.18	1.01	.25	1.30	.78
Whole of Urban and Rural Districts ..	247573		5393	21.8	3236	13.1	307	314	390	72	3243	13.1	.21	.84	.25	1.02	.79
<b>RURAL DISTRICTS.</b>																	
Atcham ..	20950	460	444	21.2	380	18.1	105	15	34	77	290	13.8	.24	1.10	.33	.76	1.10
Bridgnorth ..	9140	—	195	21.3	92	10.0	—	16	15	77	108	11.9	.11	.66	.11	.88	
Burford ..	1342	32	34	25.3	22	16.4	4	1	5	147	19	14.1	.75	.75	.0	.0	
Chirbury ..	3304	66	66	20.0	41	12.4	—	4	4	61	45	13.6	.61	1.51	.61	.30	
Church Stretton ..	4820	81	82	17.0	46	9.5	1	11	2	24	56	11.6	.21	.62	.0	.62	
Cleobury Mortimer ..	7020	179	180	25.6	67	9.5	—	7	12	66	74	10.5	.14	.71	.14	.57	
Clun ..	6540	156	156	23.8	83	12.7	—	1	8	51	84	12.8	.46	.61	.15	.92	
Drayton ..	12420	240	239	19.2	149	11.9	5	6	18	75	150	12.0	.32	.48	.40	.64	
Ellesmere ..	8429	154	154	18.3	92	10.9	—	9	12	78	101	11.9	.0	.47	.12	1.07	
Ludlow ..	9420	228	234	24.8	83	8.8	2	19	11	47	100	10.6	.11	.21	.11	.32	
Newport ..	6000	120	124	20.7	54	9.0	—	3	7	56	57	9.5	.33	.17	.0	1.17	
Oswestry ..	15500	346	340	21.9	225	14.5	27	14	33	97	212	13.7	.32	1.23	.13	.71	
Shifnal ..	8965	189	189	21.0	114	12.7	1	14	14	74	127	14.1	.11	.45	.89	1.00	
Teme ..	1644	48	49	29.8	10	6.1	—	—	0	0	10	6.1	.0	.61	.0	.61	
Wellington ..	11091	—	256	23.1	134	12.1	—	19	21	82	153	13.7	.36	.63	.45	1.17	
Wem ..	8373	173	173	20.6	108	12.8	—	16	13	75	124	14.8	.24	.60	.24	.96	
Whitchurch ..	1940	35	36	18.5	12	6.2	—	1	3	83	13	6.7	.0	.52	.0	.52	
Whole of Rural Districts ..	137504		2951	21.5	1712	12.5	145	156	212	72	1723	12.5	.24	.71	.26	.79	
Whole of Urban and Rural Districts ..	247573		5393	21.8	3236	13.1	307	314	390	72	3243	13.1	.21	.84	.25	1.02	



DISTRICTS.	FAMILIES OR Separate Occupiers. 1911	POPULATION.		Increase or decrease of population in Intercensal Period.		Percentage increase or decrease.
		1901	1911	Increase.	Decrease.	
<i>Rural.</i>						
Atcham ..	4591	20895	21770	875	—	+ 4.2
Bridgnorth ..	2061	8573	9125	552	—	+ 6.4
Burford ..	286	1233	1308	75	—	+ 6.1
Chirbury ..	811	3539	3304	—	235	— 6.6
Church Stretton ..	1069	4479	4797	318	—	+ 7.1
Cleobury Mortimer ..	1419	6720	6976	256	—	+ 3.8
Clun ..	1517	6824	6565	—	259	— 3.8
Drayton ..	2846	11708	12340	632	—	+ 5.4
Ellesmere ..	1752	7911	8365	454	—	+ 5.7
Ludlow ..	2059	9585	9438	—	147	— 1.5
Newport ..	1306	6033	6005	—	28	— 0.5
Oswestry ..	3450	14727	15443	716	—	+ 4.9
Shifnal (without Weston & Blymhill)	1859	8021	8155	134	—	+ 1.7
Teme ..	382	1846	1644	—	202	— 10.9
Wellington ..	2433	10941	11091	150	—	+ 1.4
Wem ..	1940	8266	8373	107	—	+ 1.3
Whitchurch ..	439	1924	1935	11	—	+ 0.6
Total Rural ..	30220	133225	136634	3409	—	+ 2.56
Total of Urban and Rural Districts ..	54946	239783	246307	6524	—	+ 2.72

The above table shows the census figures relating to Shropshire. The increase of population during the years 1901 to 1911 was 6,524, or 2.72 per cent., compared with an increase of 2,956, or 1.2 per cent. during the previous ten years. It will be noticed that Ludlow, Wenlock, and Bridgnorth, are the only urban districts showing a decrease of population. The decrease in the Borough of Wenlock was most marked in the sub-registration district of Broseley. The percentage decrease was greatest in Ludlow (7.0 per cent.) and is probably to some extent accounted for, by the fact that in 1901 the population was added to, by works in connection with the Birmingham pipe line. The rural districts showing a decrease of population were Chirbury, Clun, Ludlow, Newport, and Teme, these being mostly agricultural districts in the south or west of the County. The largest percentage increases were Church Stretton Urban, 78.3, Whitchurch Urban, 10.3, Wellington Urban, 9.9, Oakengates, 7.7, and Church Stretton Rural, 7.1.

The population of the Registration County at the Census 1911 was 266,054, and it is estimated to have been 266,974 at the middle of 1912.

It includes certain small portions of the administrative Counties of Chester, Flint, Denbigh, Montgomery, Hereford, Worcester, and Stafford. It does not, however, include certain portions of the Administrative County of Salop, which are situated in the Registration Counties of Montgomery, Radnor, Worcester, and Stafford.

The Registration County is the area hitherto used by the Registrar-General for his mortality statistics relating to this County. It is also the area used by the Local Government Board for vaccination statistics.

The Registrar-General in his report for the year 1910 says :—“ Future reports upon natality and mortality will have regard solely to administrative areas, and will also embody the other improvements described in my report for the year 1909.”

The improvements referred to are :—

(1) The substitution of Local Government Administrative Areas for Registration Areas in the Annual Report.

(2) The substitution of the recently revised International List of Causes of Deaths for that at present in use.

(3) An arrangement for allocating to their proper districts all deaths of persons dying away from their homes. In this work the County Medical Officers of Health are co-operating with the Registrar-General.

These alterations will make the report most valuable for Public Health purposes.

TABLE 2.  
POPULATION IN AGE PERIODS AT 1911 CENSUS.

Age Period.	URBAN DISTRICTS.				RURAL DISTRICTS.			
	Males.	Females.	Total.	Percentage at each age Period.	Males.	Females.	Total.	Percentage at each age Period.
Under 1	1117	1105	2222	2.03	1388	1375	2763	2.0
1—5	4494	4486	8980	8.2	5768	5620	11388	8.3
5—10	5682	5758	11440	10.4	7130	7296	14426	10.6
10—15	5579	5552	11131	10.1	7013	6955	13968	10.2
15—20	5124	5056	10180	9.3	6648	5856	12504	9.2
20—25	4293	4445	8738	8.0	5284	5097	10381	7.6
25—35	7960	8372	16332	14.9	9468	9444	18912	13.8
35—45	6966	7388	14354	13.1	8564	8730	17294	12.7
45—55	5253	5800	11053	10.1	7085	6936	14021	10.3
55—65	3656	4048	7704	7.0	5009	5060	10069	7.4
65—75	2338	2973	5311	4.8	3589	3910	7499	5.5
75—85	810	1154	1964	1.8	1355	1592	2947	2.2
85—95	91	170	261	.2	166	282	448	.3
95 and upwards	1	2	3	.003	4	10	14	.01
	53364	56309	109673		68471	68163	136634	

The above table is of very considerable interest and importance, particularly when it is compared with the figures of the previous census (see Annual Report for 1909). Such a comparison shows that the age distribution of the population has altered considerably during the 10 years.

The percentage at each age period up to 25 has decreased, and with one exception (55—65) the percentage at each age period over 25 has increased. The economic effect of this altered age distribution has probably not yet been felt, as the reduction of the population has been principally of children below the working age. During the next ten years the important age period of 15—35 will be more materially affected, and there will be a further increase of percentage of persons at the higher age periods.

A comparison of the distribution of the population in urban and rural districts is very instructive. The slightly larger percentage under one year in the urban districts indicates a higher birth-rate. In the periods 1—5, 5—10, and 10—15 years, this is more than equalised by the lower death-rate of the rural districts. At 15 the migration from the country to the towns begins, and from that age until 45, the percentage is considerably higher in the urban districts, but above 45 years, *i.e.*, at the periods of high mortality rates, the percentage is distinctly higher in the rural districts.

A comparison of the 1911 with the 1901 census figures shows that the migration of young persons between 15—35 from the country to the towns has greatly decreased during the last ten years.

This difference in the distribution of the population necessarily influences the death-rates apart from any consideration of health conditions. In order to compare one district with another or one district with the whole country, it is necessary to prepare factors of correction which remove the disturbing influence due to unequal distribution of age and sex. The following factors for correcting the death-rates have been supplied by the Registrar-General.

#### Whole County .8660.

Aggregate of Urban Districts	..	.8988	Aggregate of Rural Districts	..	.8410
Bishop's Castle ..	..	.7432	Atcham ..	..	.8224
Bridgnorth ..	..	.8913	Bridgnorth ..	..	.8599
Church Stretton..	..	.9365	Burford ..	..	.8110
Dawley ..	..	.8998	Chirbury ..	..	.8004
Ellesmere..	..	.8303	Church Stretton ..	..	.7920
Ludlow ..	..	.8389	Cleobury Mortimer ..	..	.8615
Newport ..	..	.8526	Clun ..	..	.7933
Oakengates ..	..	.9330	Drayton ..	..	.8512
Oswestry ..	..	.9231	Ellesmere ..	..	.8973
Shrewsbury ..	..	.9381	Ludlow ..	..	.8938
Wellington ..	..	.8985	Newport ..	..	.8622
Wem ..	..	.8719	Oswestry ..	..	.8502
Wenlock ..	..	.8420	Shifnal ..	..	.8253
Whitchurch ..	..	.8851	Teme ..	..	.7828
			Wellington ..	..	.8578
			Wem ..	..	.8335
			Whitchurch ..	..	.8696

#### MARRIAGES.

The number of marriages in the Registration County for 1912 was 1,781, compared with 1,699 for 1911, 1,696 for 1910. The marriage rates were 13.3 in 1912, 12.8 in 1911, 12.8 in 1910, 12.3 in 1909, and 12.9 in 1908.

## BIRTHS.

The total number of births in the Administrative County was 5,393, giving a birth-rate of 21.8, compared with 22.6 in 1911, 23.1 in 1910, 23.8 in 1909, 24.2 in 1908, 24.1 in 1907, and 24.7 in 1906. The birth-rate for the year was again the lowest on record.

The urban rate was 22.2 and the rural rate 21.5.

The birth-rate for the various sanitary districts are given in Table 1 Urban and Rural. Apart from the small district of Teme, the highest rates, as in previous years, were in the districts of Dawley (26.2), Oakengates (26.2), and Cleobury Mortimer (25.6). As previously explained, these crude rates are very misleading on account of differences of age and sex distribution, and in order to obtain more accurate estimates, the rates have been calculated on the basis of (1) total females between 15 and 45 years of age, (2) total married females between 15 and 45 years of age.

TABLE 3.  
BIRTH-RATES IN SANITARY DISTRICTS FOR 1912.

Urban Districts.	Per 1000 females between the ages of 15 and 45.	Per 1000 married females between the ages of 15 and 45.	Rural Districts.	Per 1000 females between the ages of 15 and 45.	Per 1000 married females between the ages of 15 and 45.
Bishop's Castle ..	98	229	Atcham ..	..	94
Bridgnorth ..	89	231	Bridgnorth ..	..	101
Church Stretton ..	52	172	Burford ..	..	116
Dawley .. ..	146	256	Chirbury ..	..	101
Ellesmere .. ..	65	161	Church Stretton ..	..	82
Ludlow .. ..	92	236	Cleobury Mortimer ..	..	139
Newport .. ..	64	167	Clun .. ..	..	115
Oakengates .. ..	140	243	Drayton .. ..	..	84
Oswestry .. ..	78	187	Ellesmere .. ..	..	84
Shrewsbury .. ..	89	209	Ludlow .. ..	..	117
Wellington .. ..	103	225	Newport .. ..	..	103
Wem .. ..	60	135	Oswestry .. ..	..	106
Wenlock .. ..	109	222	Shifnal .. ..	..	93
Whitchurch .. ..	83	188	Teme .. ..	..	143
	97	214	Wellington .. ..	..	114
			Wem .. ..	..	93
			Whitchurch .. ..	..	80
					101
					226

Calculated on the *total* females between 15 and 45 the districts of Dawley, Oakengates, Cleobury Mortimer, and Teme have still by far the highest rates. Calculated on the number of *married* women between 15 and 45 there is a greater approximation of rates, and the highest are Teme 327, and Clun 272.

TABLE 4.

BIRTH-RATES IN ENGLAND AND WALES AND THE COUNTY OF SALOP FOR 1912, CALCULATED  
 (1) ON WHOLE POPULATION, (2) ON FEMALES BETWEEN 15 AND 45, AND (3) ON MARRIED  
 FEMALES BETWEEN 15 AND 45.

	Birth-rates calculated on the whole population.	Birth-rates calculated on the number of females between 15 and 45 years of age.	Birth-rates calculated on the number of <i>married</i> females between 15 and 45 years of age.
England and Wales .. ..	23.8	95.9	201.0
Shropshire (Administrative County) ..	21.8	98.4	220.0
Shropshire—Urban Districts .. ..	22.2	96.2	213.4
Shropshire—Rural Districts .. ..	21.5	100.4	225.7

This table shows clearly that the true birth-rate in Shropshire is higher than that of England and Wales, and not lower as the crude figures appear to indicate. It also shows that the birth-rate is higher in the rural districts of Shropshire than in the urban districts.

#### DEATHS.

The number of deaths in the County was 3,243, compared with 3,412 in 1911, 3,347 in 1910, 3,643 in 1909, and 3,654 in 1908, and the death-rate was 13.1 compared with 13.8 in 1911, 13.6 in 1910, and 15.0 in 1909. The death-rate was the lowest recorded. Details with regard to the deaths and death-rates in the various districts are given in Tables I. and III. (urban and rural).

For the second year the deaths of persons in public institutions and of other persons who have died away from home have been distributed by the Registrar-General to the various districts to which they belong. The total number of deaths deducted from the districts was 307, and the total number added was 314. This is no doubt a much more correct distribution than was previously obtained, and it should render statistics more reliable.

The highest rates amongst the urban districts were Bishop's Castle 19.1, and Dawley 17.3, and amongst rural districts Wem 14.8, Burford 14.1, and Shifnal 14.1.

In Table 5 a comparison is made of the rates, both crude and corrected for sex and age of Shropshire urban and rural districts with England and Wales urban and rural counties.

The crude rate for Shropshire was slightly less than the rate for England and Wales, and when corrected the difference was much more marked.

TABLE 5.  
CRUDE AND CORRECTED DEATH-RATES IN THE  
URBAN AND RURAL DISTRICTS OF SHROPSHIRE AND ENGLAND AND WALES,  
FOR THE LAST 10 YEARS.

Period.	Shropshire.		England and Wales.	Urban Districts of Shropshire.		Urban Counties of England and Wales.	Rural Districts of Shropshire.		Rural Counties of England and Wales.
	Crude Rates.	† Corrected Rates.		Crude Rates.	† Corrected Rates.		† Corrected Rates.	Crude Rates.	
1912	13.1	11.3	13.3	13.8	12.4	*	12.5	11.2	*
1911	13.8	11.9	14.6	14.3	12.8	*	13.4	11.2	*
1910	13.6	12.1	13.4	14.8	13.8	14.8	12.6	10.9	11.4
1909	15.0	13.4	14.5	15.4	14.4	15.9	14.6	12.6	12.4
1908	15.0	13.4	14.7	16.0	14.9	16.1	14.3	12.3	12.6
1907	14.7	13.1	15.0	15.2	14.2	16.4	14.3	12.3	12.8
1906	14.9	13.3	15.4	15.8	14.8	16.8	14.3	12.3	12.9
1905	14.9	13.3	15.2	15.4	14.4	16.5	14.5	12.5	13.2
1904	15.7	14.0	16.2	16.6	15.5	17.9	15.1	13.0	13.5
1903	14.8	13.2	15.4	15.8	14.7	16.9	14.3	12.3	12.8

\* These figures are not yet available.

† These are the rates of mortality that would result if the age and sex constitution of the population of the Districts were identical with those of the population of England and Wales at the Census.

The factors for correction in every year up to 1910 inclusive were those given in the 1901 Census, and were smaller than those contained in the 1911 Census, which are used for the years 1911 and 1912.



TABLE IV. (RURAL).

## INFANTILE MORTALITY DURING THE YEAR 1912.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH	WEEKS.				<b>Total under 4 weeks.</b>	MONTHS.				<b>Total Deaths under 1 year.</b>
	Under 1	1—2	2—3	3—4		1—3	3—6	6—9	9—12	
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	4	1	1	...	6
Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis ...	...	...	...	...	...	...	1	1	2	4
Abdominal Tuberculosis ...	...	...	...	...	...	...	2	...	...	2
Other Tuberculous Diseases ...	...	...	...	...	...	1	...	1	...	2
Meningitis (not Tuberculous) ...	...	1	...	...	1	...	1	...	...	2
Convulsions ...	5	...	1	1	7	1	7	4	1	20
Laryngitis ...	1	...	...	...	1	...	2	...	...	3
Bronchitis ...	...	...	...	...	...	2	4	3	1	11
Pneumonia (all forms) ...	...	1	1	...	2	2	4	3	6	16
Diarrhoea ...	...	...	...	...	...	1	...	...	...	1
Enteritis ...	1	...	1	...	2	1	1	4	1	9
Gastritis ...	...	...	...	...	2	1	2	...	1	6
Syphilis ...	...	...	...	...	...	1	...	...	...	1
Rickets ...	...	...	...	...	...	...	...	...	...	...
Suffocation, over-lying ...	...	...	...	...	...	1	1	...	...	2
Injury at Birth ...	1	...	...	...	1	...	...	...	...	1
Atelectasis ...	2	...	...	...	2	...	...	...	...	2
Congenital Malformations ...	6	1	...	1	8	...	1	2	...	11
Premature Birth ...	40	3	5	3	51	1	...	...	...	52
Atrophy, Debility and Marasmus ...	20	2	3	3	28	16	3	2	1	50
Other Causes ...	4	...	1	3	8	...	2	1	...	11
<b>TOTALS</b> ...	<b>80</b>	<b>8</b>	<b>12</b>	<b>13</b>	<b>113</b>	<b>32</b>	<b>32</b>	<b>22</b>	<b>13</b>	<b>212</b>

TABLE IV. (URBAN).

## INFANTILE MORTALITY DURING THE YEAR 1912.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	WEEKS.				Total under 4 weeks.	MONTHS.				Total Deaths under 1 year.
	Under 1	1-2	2-3	3-4		1-3	3-6	6-9	9-12	
Small-pox .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Measles .. .. .. ..	..	..	..	..	..	..	..	1	2	3
Scarlet Fever .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .. .. .. ..	..	..	..	..	..	1	2	3	1	7
Diphtheria and Croup .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Erysipelas .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis .. .. .. ..	..	..	..	..	..	..	1	..	1	2
Abdominal Tuberculosis .. .. .. ..	..	..	..	..	..	1	..	..	..	1
Other Tuberculous Diseases .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not tuberculous) .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Convulsions .. .. .. ..	3	2	1	2	8	2	5	1	1	17
Laryngitis .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Bronchitis .. .. .. ..	1	2	1	1	5	3	4	6	3	21
Pneumonia (all forms) .. .. .. ..	1	..	1	2	4	1	3	6	1	15
Diarrhoea .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Enteritis .. .. .. ..	1	..	..	1	2	..	2	..	1	5
Gastritis .. .. .. ..	..	..	..	..	..	2	1	..	3	6
Syphilis .. .. .. ..	..	..	..	..	..	1	..	..	..	1
Rickets .. .. .. ..	..	..	..	..	..	..	..	1	..	1
Suffocation, over-lying .. .. .. ..	..	..	1	..	..	1	1	..	..	2
Injury at Birth .. .. .. ..	..	..	..	..	..	..	..	..	..	..
Atelectasis .. .. .. ..	..	..	2	..	..	2	..	..	..	2
Congenital Malformations .. .. .. ..	..	6	1	2	..	9	3	..	1	..
Premature Birth .. .. .. ..	..	30	2	4	2	38	3	..	..	41
Atrophy, Debility and Marasmus .. .. .. ..	5	1	3	2	11	11	2	..	..	24
Other Causes .. .. .. ..	..	6	1	..	1	8	3	3	2	1
<b>TOTALS</b> .. .. ..	..	55	10	12	11	88	32	23	14	178



## INFANTILE MORTALITY.

There were 390 deaths of infants under one year of age, equal to a mortality of 72 for every 1000 births, compared with a rate of 91 in 1911, 82 in 1910, 91 in 1909, 100 in 1908, 91 in 1907, 97 in 1906, 93 in 1905, and an average of 106 for the previous 5 years.

The rate for England and Wales was 95, and excluding 241 towns, 86.

In Table I. Urban and Rural are given the infantile rates for each sanitary district, and in Table IV. a detailed analysis is given with regard to causation of death and age at death.

The rate for the combined urban districts was 73, and that of the rural districts 72.

The highest infantile rates in the urban districts were Oswestry 97, Bridgnorth 87, Church Stretton 87, and Wellington 80.

The infantile rate of Shrewsbury shows a further large reduction and was slightly below the rate for the combined urban districts.

The infantile rates for this town for the last 11 years were:—

1902 .. 142	1906 .. 113	1910 .. 88
1903 .. 116	1907 .. 136	1911 .. 101
1904 .. 164	1908 .. 123	1912 .. 72
1905 .. 108	1909 .. 118	

The diminution appears to show what can be done by energetic action directed intelligently to improving the conditions of infantile life.

In the rural districts the highest rates were Burford 147, Oswestry 97, Whitchurch 83, and Ludlow 82. Some of these districts such as Burford and Whitchurch Rural are so small that yearly statistics are of little value. It is, however, of great importance that one should have a reliable guide as to the infantile mortality in the various districts, and for this purpose the following table has been got out giving the average infantile mortality in each district for two six-year periods, the increase or decrease in the second period and the percentage above or below the rate for the combined urban and rural districts.

TABLE 6.

AVERAGE OF THE ANNUAL INFANTILE MORTALITY FOR THE SIX-YEAR PERIODS 1901—1906 and 1907—1912.

URBAN DISTRICTS.	1901—1906		Percentage increase or decrease in second period.	1907—1912 Percentage above or below the average for Urban Districts.	RURAL DISTRICTS.		1901—1906		Percentage increase or decrease in second period.	1907—1912 Percentage above or below the average for Rural Districts.
	1907	1912			1901	1907	1906	1912		
Bishop's Castle ..	86	88	+ 2.3	— 9.3	Atcham ..	..	84	81	— 3.6	0.0
Bridgnorth ..	106	120	+ 13.2	+ 23.7	Bridgnorth ..	..	87	66	— 24.1	— 18.5
Church Stretton ..	96	90	— 6.3	— 7.2	Burford ..	..	59	74	+ 25.4	— 8.6
Dawley ..	112	99	— 11.6	+ 2.1	Chirbury ..	..	77	61	— 20.8	— 24.7
Ellesmere ..	103	78	— 24.3	— 19.6	Church Stretton ..	..	97	79	— 18.6	— 2.5
Ludlow ..	113	91	— 19.5	— 6.2	Cleobury Mortimer ..	..	92	77	— 16.3	— 4.9
Newport ..	117	77	— 34.2	— 20.6	Clun ..	..	100	72	— 28.0	— 11.1
Oakengates ..	138	101	— 26.8	+ 4.1	Drayton ..	..	115	88	— 23.5	+ 8.6
Oswestry ..	102	97	— 4.9	0.0	Ellesmere ..	..	92	91	— 1.1	+ 12.3
Shrewsbury ..	126	106	— 15.9	+ 9.3	Ludlow ..	..	91	75	— 17.6	— 7.4
Wellington ..	114	77	— 32.5	— 20.6	Newport ..	..	106	93	— 12.3	+ 14.8
Wem ..	93	94	+ 1.1	— 3.1	Oswestry ..	..	96	96	0.0	+ 18.5
Wenlock ..	102	86	— 15.7	— 11.3	Shifnal ..	..	94	74	— 21.3	— 8.6
Whitchurch ..	103	98	— 4.9	+ 1.0	Teme ..	..	127	94	— 26.0	+ 16.0
All Districts ..	112	97	— 13.4		Wellington ..	..	102	84	— 17.6	+ 3.7
					Wem ..	..	69	68	— 1.4	— 16.0
					Whitchurch ..	..	61	64	+ 4.9	— 21.0
All Districts ..	93	81	— 12.9							

It will be observed that the decrease has been slightly greater in the urban than in the rural districts. Apart from the small district of Burford, Bridgnorth Borough was the only district in which the infantile mortality showed a considerable increase in the second period over the first period. The most important decreases were in Newport Urban, 34.2 per cent., Wellington Urban 32.5, Clun 28.0, and Oakengates 26.8. The urban districts showing a considerable excess in the second period over the rate for combined urban districts were Bridgnorth 23.7 per cent., excess, and Shrewsbury 9.3 per cent. excess; similarly of the rural districts, Oswestry 18.5 per cent., Teme 16.0 per cent., Newport 14.8 per cent., Ellesmere 12.3 per cent. excess.

Dealing with the County as a whole it will be seen by reference to Table IV. (urban and rural) that many of the deaths were from causes of a preventable nature. In order to form a clear conception of the number of deaths from preventable causes, these have been extracted and classified according to their probable causation. It is not suggested that even with the greatest care the whole of these deaths might have been prevented, but there can be no doubt that with reasonable care and knowledge they would have been lessened by a very large percentage.

(1) Infantile deaths, of which a considerable proportion were no doubt due to errors of feeding :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Diarrhoea .. .. ..	0	1	1
Enteritis (not tuberculous) .. .. ..	5	9	14
Gastritis .. .. ..	6	6	12
Atrophy, Debility, Marasmus .. .. ..	24	50	74
Convulsions .. .. ..	17	20	37
Total .. .. ..	52	86	138

(2) Infantile deaths, a considerable proportion of which were due to improper clothing, exposure to cold, exposure to infection, and general want of attention to the laws of health :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Infectious Disease .. .. ..	10	6	16
Bronchitis .. .. ..	21	11	32
Pneumonia (all forms) .. .. ..	15	16	31
Total .. .. ..	46	33	79

(3) Infantile deaths due to a great extent to a want of care on the part of the mother for her own health :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Premature Births .. .. ..	41	52	93

(4) Infantile deaths due to tuberculous infection :—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
	3	8	11

The deaths from these causes, which in a large measure may be considered as preventable, numbered 82.3 per cent. of the whole. It is evident, therefore, that there is much scope for the reduction of the infantile mortality.

III (URBAN).

AUSES OF DEATH IN AGE PERIODS DURING YEAR 1912, IN THE URBAN DISTRICTS OF SHROPSHIRE



III. (RURAL)  
CAUSES OF DEATH IN AGE PERIODS DURING YEAR 1912, IN THE RURAL DISTRICTS OF SHROPSHIRE.

CAUSES OF DEATH.	TOTAL DEATHS IN RURAL DISTRICTS IN AGE PERIODS.										CAUSES OF DEATHS IN THE DIFFERENT RURAL DISTRICTS.																
	All Ages.	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Atcham.	Bridgnorth.	Burford.	Chirbury	Church Stretton	Cleobury Mortimer.	Clun.	Drayton	Ellesmere.	Ludlow.	Newport	Oswestry	Shifnal.	Teme.	Welling-ton.	Wem.	Whitchurch.	
Enteric Fever .. .. .. .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Small-pox .. .. .. .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Measles .. .. .. .. ..	3	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Scarlet Fever .. .. .. .. ..	4	..	1	2	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	
Whooping Cough .. .. .. .. ..	11	6	4	1	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	
Diphtheria and Croup .. .. .. .. ..	8	..	2	2	3	..	..	1	..	4	..	3	..	..	..	..	1	..	..	..	1	..	..	..	..	..	
Influenza .. .. .. .. ..	33	1	..	..	1	..	4	8	19	5	..	..	..	1	..	..	3	4	..	1	2	5	1	..	4	2	..
Erysipelas .. .. .. .. ..	1	..	..	..	..	..	..	1	..	..	5	1	1	2	1	1	..	..	..	..	..	..	..	..	..	..	
Phthisis (Pulmonary Tuberculosis) .. .. .. .. ..	97	..	..	..	1	26	49	16	5	23	6	1	5	3	5	4	6	4	2	1	19	4	1	7	5	1	
Tuberculous Meningitis .. .. .. .. ..	16	3	4	1	4	2	2	..	..	2	..	..	2	..	1	1	1	..	..	2	6	..	..	1	..	..	
Other Tuberculous Diseases .. .. .. .. ..	20	5	..	2	3	4	5	1	..	5	1	..	..	..	1	1	..	..	..	..	..	..	..	1	..	..	
Cancer, malignant disease .. .. .. .. ..	158	..	..	..	2	..	15	63	78	28	9	..	3	3	..	4	10	18	9	13	7	23	10	1	7	9	4
Rheumatic Fever .. .. .. .. ..	7	..	..	..	1	3	2	..	1	..	1	..	..	1	..	..	3	..	..	..	1	..	..	..	..	..	
Meningitis .. .. .. .. ..	12	2	1	1	3	2	1	1	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
Organic Heart Disease .. .. .. .. ..	230	..	..	..	3	6	11	51	159	38	11	2	5	6	10	17	20	22	7	9	34	12	2	22	12	1	
Bronchitis .. .. .. .. ..	109	12	3	1	1	1	2	15	74	16	8	..	2	3	5	6	8	9	3	7	11	9	1	13	8	..	
Pneumonia (all forms) .. .. .. .. ..	109	16	11	9	5	2	11	19	36	23	7	..	1	2	5	4	8	3	7	6	15	3	1	16	7	1	
Other Diseases of Respiratory Organs .. .. .. .. ..	8	..	..	..	..	..	3	1	3	1	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	
Diarrhoea and Enteritis .. .. .. .. ..	21	10	5	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Appendicitis and Typhilitis .. .. .. .. ..	8	..	..	..	..	2	1	1	2	2	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	
Cirrhosis of Liver .. .. .. .. ..	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Alcoholism .. .. .. .. ..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Nephritis and Bright's Disease .. .. .. .. ..	55	..	..	..	..	..	1	2	5	18	29	8	3	1	2	3	..	..	..	..	..	..	..	..	..	..	
Puerperal Fever .. .. .. .. ..	4	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	4	3	6	..	6	10	..	3	6	..
Other Accidents and Diseases of Pregnancy and Parturition .. .. .. .. ..	8	..	..	..	..	..	2	6	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
Congenital Debility and Malformation including Premature Birth .. .. .. .. ..	114	113	1	..	..	2	6	..	..	2	..	..	..	..	2	..	1	1	..	..	1	..	..	..	1	..	
Violent Deaths, excluding Suicide .. .. .. .. ..	53	1	5	2	3	6	11	19	6	16	4	..	3	1	8	6	10	9	7	4	18	8	..	10	8	2	
Suicides .. .. .. .. ..	16	..	..	..	..	..	3	9	4	..	..	1	2	3	2	4	1	7	..	..	8	4	1	4	2	..	
Other Defined Diseases .. .. .. .. ..	558	33	2	6	8	9	27	75	398	83	37	5	19	27	23	27	45	34	41	16	50	43	3	51	51	3	
Diseases ill-defined or unknown .. .. .. .. ..	43	10	2	1	..	1	2	9	18	7	4	1	..	..	2	..	7	..	4	..	6	7	..	5	..		
<b>TOTALS .. .. .. .. ..</b>	<b>1723</b>	<b>212</b>	<b>42</b>	<b>30</b>	<b>47</b>	<b>68</b>	<b>165</b>	<b>317</b>	<b>842</b>	<b>290</b>	<b>108</b>	<b>19</b>	<b>45</b>	<b>56</b>	<b>74</b>	<b>84</b>	<b>150</b>	<b>101</b>	<b>100</b>	<b>57</b>	<b>212</b>	<b>127</b>	<b>10</b>	<b>153</b>	<b>124</b>	<b>13</b>	



The actual number of deaths from these causes was 321, compared with 390 in 1911, 381 in 1910, and 457 in 1909.

The decrease was most marked in diarrhoeal deaths, and it is very remarkable that there was only one death from diarrhoea under one year of age in the whole County, compared with 33 in the previous year, and only 14 deaths from enteritis compared with 48 in the previous year.

The much higher percentage of infantile deaths taking place in the first week of life in rural districts compared with urban districts is again most noticeable.

The figures are :—

	Urban.	Rural.
1912 ..	31 per cent.	38 per cent.
1911 ..	23 per cent.	34 per cent.
1910 ..	22 per cent.	28 per cent.

On the face of it, it seems probable that this excess of deaths under one week in rural districts is due to the difficulty of obtaining prompt medical assistance and to the unwillingness of midwives to send any considerable distance for medical help on account of illness of the child, unless the symptoms are very urgent. The result is that medical help is either not obtained at all or it is obtained when too late to be of use. It may also be due partly to the lack of properly trained midwives in country districts.

This matter has come prominently under my notice in the administration of the Midwives Act. The remedy is to improve the supply of trained midwives for country districts and to strictly enforce the rules relating to sending for medical help, and also to make it easy for the midwives to obtain medical help for poor persons.

On this point Dr. Woods, in his report for Chirbury Rural District, says :—"The supply of midwives in some parts of the district is very short.

" Two, in Worthen part of the district have died recently and no one has taken their places.

" The outlook for the future in this direction is not encouraging.

" Lack of proper attention during confinements is bound to have a prejudicial effect on the mother, also the infantile mortality will probably rise in the near future."

Apart from a general improvement of sanitary conditions, the essential step for the reduction of infantile mortality is the adoption of the Notification of Births Act and the provision of a proper system of health visiting (see page 29.)

#### CHIEF CAUSES OF DEATH.

TABLE 7.

	Urban Districts.		Rural Districts.		Whole County.	
	1912		1912		1912	
	Deaths.	Death- rates.	Deaths.	Death- rates.	Deaths.	Death- rates.
Phthisis ..	..	..	111	1.01	97	.71
Other Forms of Tuberculosis ..	..	..	27	.25	36	.26
Bronchitis ..	..	..	143	1.30	109	.79
Pneumonia (all forms) ..	..	..	86	.78	109	.79
Cancer ..	..	..	110	1.00	158	1.15
					208	.81
					63	.25
					252	1.02
					195	.79
					268	1.08

## INFECTIOUS DISEASES.

TABLE 8.

## ANALYSIS OF DEATHS AND DEATH-RATES FROM THE COMMON INFECTIOUS DISEASES.

	Small-pox.		Scarlet Fever.		Typhoid Fever.		Diphtheria.		Measles.		Whooping Cough.		Diarrhoea and Enteritis under 2 years of age.
	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths per 1000 births
Urban Districts	0	.00	2	.02	0	.00	9	.08	18	.16	15	.14	8 <b>3.27</b>
Rural Districts ..	0	.00	4	.03	0	.00	8	.06	3	.02	11	.08	15 <b>5.08</b>
Whole County ..	0	.00	6	.02	0	.00	17	.07	21	.08	26	.10	23 <b>4.26</b>
England & Wales		.06		.05		.04		.11		.35		.23	<b>8.53</b>
England & Wales less 241 towns		.00		.04		.04		.10		.20		.17	<b>5.54</b>
NOTIFICATIONS.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.					
Urban Districts ..			149	1.3	7	.0	98	9.2					
Rural Districts ..			269	1.5	4	.0	83	9.6					
Whole County ..			418	1.4	11	0	181	9.4					

In this table the County of Salop should be compared with England and Wales less 241 towns. It will be seen that the County rates were considerably smaller in every instance.

*Small-pox.*—No case of small-pox was notified during the year. There has now been almost complete freedom from small-pox in the County since 1904. It must be remembered, however, that the performance of vaccination, which reached a high degree of efficiency in the years 1903 and 1904, has been falling off rapidly during the last four or five years. It is all the more necessary therefore that one should see that the other means of controlling small-pox are kept in an efficient condition.

*Scarlet Fever.*—The number of cases notified was 418, compared with 874 in 1911, 729 in 1910, and 1,069 in 1909. There were only 6 deaths, compared with 10 in 1911, 13 in 1910, and 31 in 1909.

The case mortality has been very low during the last three years—2.9 in 1909; 1.8 in 1910; 1.1 in 1911; and 1.4 in 1912. This low mortality may be due principally to an increasing mildness of the disease or to a greater vigilance of sanitary officials, which has resulted in many mild and otherwise overlooked cases being discovered.

## II. (URBAN).

## CASES OF INFECTIOUS DISEASE NOTIFIED IN 1912 IN URBAN DISTRICTS.

NOTIFIABLE DISEASES.	CASES IN URBAN DISTRICTS IN AGE PERIODS.								TOTAL CASES NOTIFIED IN EACH DISTRICT.														
	Age Periods.								1 Bishop's Castle.	2 Bridgnorth.	3 Church Stretton.	4 Dawley.	5 Ellesmere.	6 Ludlow.	7 Newport.	8 Oakengates.	9 Oswestry.	10 Shrewsbury.	11 Wellington.	12 Wem.	13 Wenlock.	14 Whitchurch.	
	All Ages.	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards															
Small-pox ..	..	..	..	..	..	..	..	..															
Cholera ..	..	..	..	..	..	..	..	..															
Diphtheria ..	..	98	21	51	10	13	3	..															
Membranous Croup ..	..								..	2	4	2	3	..	..	3	24	43	9	..	6	2	
Erysipelas ..	..	36	1	2	2	4	8	13	6	..	..	4	..	2	1	2	5	10	6	..	6	..	
Scarlet Fever ..	..	149	..	25	104	13	6	1	..	2	7	19	24	..	12	1	17	10	20	2	9	15	11
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Enteric Fever ..	..	..	7	..	..	4	2	..	1	..	6	..	..	..	..	..	..	..	1	..	..	..	
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Continued Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Puerperal Fever ..	..	6	..	..	..	1	5	..	..	..	..	..	1	..	..	..	..	..	1	3	1	..	
Cerebro-spinal Meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Poliomyelitis ..	..	2	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	
Pulmonary Tuberculosis ..	239	..	2	32	39	118	46	2	6	16	6	23	3	10	7	15	24	68	18	1	30	12	
Ophthalmia Neonatorum ..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
<b>TOTALS ..</b>	<b>..</b>	<b>535</b>	<b>2</b>	<b>50</b>	<b>194</b>	<b>69</b>	<b>150</b>	<b>65</b>	<b>8</b>	<b>8</b>	<b>31</b>	<b>29</b>	<b>53</b>	<b>7</b>	<b>24</b>	<b>9</b>	<b>38</b>	<b>63</b>	<b>143</b>	<b>39</b>	<b>11</b>	<b>58</b>	<b>25</b>



## II (RURAL).

## CASES OF INFECTIOUS DISEASE NOTIFIED IN 1912 IN RURAL DISTRICTS.

NOTIFIABLE DISEASES.	CASES IN RURAL DISTRICTS IN AGE PERIODS.									TOTAL CASES NOTIFIED IN EACH DISTRICT.																
	Age Periods.									Atcham.	Bridgnorth.	Burford.	Chirbury.	Church Stretton.	Cleobury Mortimer.	Clun.	Drayton.	Ellesmere.	Ludlow.	Newport.	Oswestry.	Shifnal.	Teme.	Wellington	Wem.	Whitchurch.
	All Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards																		
Small-pox .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria .. ..	.. ..	83	..	8	43	17	14	1	..	31	3	..	4	2	..	4	15	6	6	2	3	..	..	5	2	..
Membranous Croup .. ..	.. ..		..	..	..	..	..	..	..	15	7	..	5	40	19	14	18	10	13	3	70	5	2	9	37	2
Erysipelas .. ..	.. ..	45	1	1	1	5	13	17	7	11	2	..	1	4	..	5	3	4	2	..	4	2	..	7	..	..
Scarlet Fever .. ..	.. ..	269	..	60	167	26	15	1	..	15	7	..	5	40	19	14	18	10	13	3	70	5	2	9	37	2
Typhus Fever .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever .. ..	.. ..	4	..	1	1	..	..	1	1	..	1	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..
Relapsing Fever .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever .. ..	.. ..	10	..	..	..	3	7	..	..	2	..	..	..	3	1	..	2	1	..	..	..	..	..	1	..	..
Cerebro-spinal Meningitis .. ..	1	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Poliomyelitis .. ..	.. ..	1	.. ..	.. ..	.. ..	.. ..	.. ..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis .. ..	199	1	2	20	53	89	30	4	37	10	4	3	9	15	10	7	8	11	8	27	8	2	22	16	2	
Measles .. ..	.. ..	65	2	16	43	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	65	..	..
TOTALS .. ..	677	4	88	275	105	142	51	12	96	23	4	13	55	37	35	45	30	33	13	105	16	4	109	55	4	



The districts principally affected were:—Church Stretton Urban (19), Church Stretton Rural (40), Oswestry Rural (70), and Wem Rural (37). Cases were removed to an isolation hospital in Shrewsbury (85 per cent.), and Drayton (44 per cent.). Apparently no cases of scarlet fever were admitted to the Bridgnorth or Newport Hospitals.

*Measles*.—There were 21 deaths from measles compared with 23 in 1911, 30 in 1910, 8 in 1909, 42 in 1908, and 57 in 1907.

In the Education County 583 cases were notified by the school teachers, and 27 schools were closed on the recommendation of the School Medical Officer.

Seventeen of the 21 deaths occurred in the Urban Districts of Shrewsbury and Whitchurch.

The epidemic in Whitchurch was particularly severe, and Dr. Gepp endeavoured to obtain a nurse for the purpose of visiting the homes of affected children in accordance with a scheme previously approved. Unfortunately the Shropshire Nursing Federation was not in a position to supply a nurse.

With regard to the Shrewsbury epidemic Dr. Orr says:—"The small number of deaths compared with the large number of cases of the disease may be attributed to the supervision of the cases by the School Nurse and Health Visitors. All the cases notified by the school teachers were visited, and instructions were given to the parents regarding the means of preventing complications, by which measles becomes fatal, and of preventing infection."

With our present knowledge and facilities little or nothing can be done to prevent the spread of measles. Much, however, can be done and should be done to lessen the mortality from measles. The mortality is mostly due to lack of care on the part of the parents, arising from the light way in which the disease is regarded, and it is probable that a good system of health visiting would reduce the mortality by at least 50 per cent. In the meantime some good may be effected by seeing that every household where there is measles has a leaflet of instructions pointing out the dangers and how they can best be obviated. This will shortly be carried out so far as school children are concerned.

*Whooping Cough*.—There were 26 deaths from whooping cough compared with 39 in 1911, 28 in 1910, 63 in 1909, and 40 in 1908. Fifteen of the deaths were in urban districts and 11 in rural districts.

In the Education County 899 cases were notified by the school teachers, and 24 schools were closed on the recommendation of the School Medical Officer.

As regards the spread of whooping cough, preventive measures have hitherto had almost no effect, and there seems little hope of more effective control in the near future. It is undoubtedly possible to greatly diminish the mortality from this disease by the scheme for the provision of emergency nursing and inspection which has been recommended for dealing with measles.

*Diphtheria*.—There were 181 cases and 17 deaths, compared with 226 cases and 19 deaths in 1911, 349 cases and 37 deaths in 1910, and 312 cases and 37 deaths in 1909. The districts principally affected were Oswestry Urban (24), Atcham (31), and Shrewsbury (43). Diphtheria anti-toxin is now provided for treatment by nearly all the Councils free of cost, and by some for preventive purposes.

There has been comparatively little evidence of the spread of diphtheria in schools during the year.

Several investigations were made on account of small outbreaks both by the District Medical Officers of Health and by the School Medical Staff.

The regulation of the Local Education Authority that no children who have suffered from diphtheria shall return to school until their throats have been declared free from diphtheria bacilli has been carried out during the year.

*Enteric or Typhoid Fever.*—There were 11 cases and no deaths, compared with 10 cases and no deaths in 1911, 25 cases and 10 deaths in 1910, and 45 cases and 9 deaths in 1909.

It is a matter for congratulation that there has not been a single death in the County from typhoid fever during the last two years. Of the 11 cases, only four were verified by bacteriological examination. Six of the cases were in the Borough of Bridgnorth and only one in the remainder of the urban districts. The other four cases occurred as single outbreaks in the rural districts of Bridgnorth, Clun, Oswestry, and Shifnal; none of these being verified by bacteriological examination.

With regard to the six cases in the Borough of Bridgnorth, Dr. Dickson says:—"One of these cases was of a doubtful nature. No common source of infection could be discovered." The cases in the rural districts were of obscure origin.

The chief interest in the distribution of the cases is that 55 per cent. of these were in the Borough of Bridgnorth. In the previous year 3 out of 10 of the cases were in the same borough, so that out of the 21 cases occurring in the whole county during the last two years, no less than 9 were in the Borough of Bridgnorth. This points to the likelihood of the existence of some special condition in the Borough that is responsible for these sporadic cases.

The diminution, and finally the practical extinction of typhoid fever in Shrewsbury, following upon (1) the removal of the Asylum sewage from the river, and (2) the filtration of the river water, is strong evidence that this disease was spread by the use of river water for drinking purposes. There was a similar diminution of typhoid fever in the Ironbridge district with the introduction of the Harrington supply, which could only be attributed to the cessation of the use of river water for drinking purposes.

In the Borough of Bridgnorth there is a dual supply of water. For drinking purposes water is obtained from a well and laid on to standpipes. For other purposes it is laid on to houses from the river after filtration. About four years ago a battery of Candy's filters were installed. Previous to this, inefficient sand filters were used. Inquiries show that the river water is much used for drinking, and it is quite possible that this practice has become more common since the new filters have been in use. The efficiency of the filters is the only protection of the inhabitants from water-borne disease, and *it is only possible to determine this efficiency by frequent bacteriological examination. Such examinations do not appear to have been made.*

Dr. Mivart, in his report to the Local Government Board in 1910, said:—"The Severn water supplied to Bridgnorth, though intended for purposes other than drinking, has undoubtedly been used to no inconsiderable extent, hitherto, for drinking, and is likely to be so used even more in the future. In view of this, and of doubt as to the degree in which the new filters may afford protection to the consumers of this water, this portion of the Bridgnorth supply must be held to constitute a danger to the community."

The decrease of typhoid fever throughout the whole County is a matter of great interest. It appears probable that the diminution in country districts has been brought about principally through the improved sanitary condition of the towns. In sparsely populated districts the amount of typhoid fever is dependent mostly upon the number of cases introduced from outside. With

a lessened incidence in the towns brought about by improved water supplies, improvements in drainage and disposal of excrement and other sanitary improvements, the importation of cases into the country districts has no doubt correspondingly decreased. The more careful supervision of the supplies of shell-fish may also be an important factor.

*Diarrhoea and Enteritis.*—There were 34 deaths from these diseases compared with 124 in 1911, 69 in 1910, 72 in 1909, and 82 in 1908.

Twenty-three out of the 34 deaths were under 2 years of age, giving a rate of .09.

These rates are now calculated by the Registrar-General per 1000 births and not per 1000 persons living. The rate per 1000 births for diarrhoea and enteritis under 2 years of age was 4.26. The corresponding rate for England and Wales was 8.53, and for England and Wales less 241 towns it was 5.54.

The rate for the urban districts of Shropshire was only 3.27, and the rural districts 5.08. The fact that the rate for the rural districts exceeded that for the urban districts is contrary to all previous experience. Infantile summer diarrhoea is a disease much more prevalent in towns than in the country, but owing to the cold summer of 1912 this town prevalence appears to have been entirely absent.

The following table compares the deaths from diarrhoea and enteritis for the years 1908, 1909, 1910, 1911, and 1912:—

	1908			1909			1910			1911			1912		
	Under 1 year	Over 1 year	Total												
Diarrhoea ..	19	10	29	32	9	41	15	12	27	79	45	124	17	17	34
Enteritis ..	25	28	53	21	10	31	27	15	42	79	45	124	17	17	34
Total ..	44	38	82	53	19	72	42	27	69	79	45	124	17	17	34

*Puerperal Fever.*—Sixteen cases of puerperal fever, 6 in the urban districts and 10 in the rural districts were notified, with 6 deaths; compared with 18 cases and 7 deaths in 1911, and 11 cases and 6 deaths in 1910. All cases where a certified midwife had been in attendance were inquired into carefully by myself or my inspector. Further details with regard to these will be found in the chapter on the Midwives Act.

The greater prevalence of puerperal fever in late years in the rural districts compared with the urban districts, is somewhat striking, especially considering the greater opportunities of infection in urban districts. The numbers since 1905 are:—

	Urban.	Rural.	Urban.	Rural.	
1905 ..	9	8	1909 ..	9	17
1906 ..	4	6	1910 ..	4	7
1907 ..	4	9	1911 ..	2	16
1908 ..	6	9	1912 ..	6	10

There is reason to believe that notifications of puerperal fever are becoming more complete from year to year.

## TUBERCULOSIS.

TABLE 9.

	DEATH-RATES FROM PHthisis.												DEATH-RATES FROM OTHER FORMS OF TUBERCULOSIS.											
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912		
Urban Districts	1.05	1.18	1.4	1.0	1.20	1.15	1.09	1.04	.93	1.12	1.01	.43	.54	.41	.37	.47	.27	.45	.41	.29	.31	.25		
Rural Districts	.70	.86	.87	.92	.91	.83	.83	.83	.77	.68	.71	.21	.32	.39	.28	.27	.31	.41	.38	.15	.37	.26		
Whole County	.85	1.0	1.1	.96	1.04	.97	.95	.93	.85	.87	.84	.31	.41	.40	.32	.36	.29	.43	.39	.21	.34	.25		
England & Wales	1.23	1.20	1.2	1.14	1.15	1.14	1.11	1.08	1.01	*	*	.50	.54	.54	.49	.49	.46	.47	.44	.41	*	*		

\* These rates are not yet available

*Phthisis*.—Notification of phthisis has been in force throughout the year, and the cases notified in each district are stated on Table II. Urban and Rural. The total number of notifications was 239 in the urban and 199 in the rural districts.

It is evident that only a fraction of the cases were notified, and as the completeness of notification is an essential factor in the prevention of the disease, it is important to find out what this proportion was. It is important too, that one should adopt some method of estimating the completeness of notification, so that the results year by year can be compared. For this purpose it has been assumed that the average duration of cases of phthisis, in a condition that can be recognised, is 4 years. On this supposition, the number of cases at any one time would be equal to four times the annual number of deaths. The average annual number of deaths for the four years ending 1912 was 212, and the number of cases of phthisis alive on December 31st, 1912, may be consequently assumed to be 848. In order to arrive at the number of cases that should have been notified it is necessary to add to this number, the number of deaths during the year 1912 (208), and to deduct the number notified in 1911 that were alive in 1912 (approximately 35), as these cases did not require re-notification. This gives a total of 1,021. The actual number of cases notified in 1912, eliminating those notified a second time, was 426, or approximately 42 per cent. of the estimated number of cases. This must be deemed satisfactory as a first year's notification, considering the reluctance of patients to call in medical men and the difficulty of diagnosis in the early stages of the disease.

Notifications classified with regard to sex and age:—

Age.	0—1	1—5	5—10	10—15	15—20	20—25	25—35	35—45	45—55	55—65	65 and upwards.	Total
Male	1	2	10	16	11	28	49	55	34	21	5	232
Female	—	2	8	17	17	27	53	30	16	4	2	176
Total	1	4	18	33	28	55	102	85	50	25	7	408*

\* Eighteen cases (13 males and 5 females) in which the ages were not stated have been omitted from this table.

The cases amongst males were 32 per cent. more numerous than those amongst females.

Fifty-nine per cent. of the cases were between the ages of 20 and 45.

The age incidence amongst females was considerably lower than that amongst males, e.g., 70 per cent. of the cases of females were under 35 years of age, whilst only 50 per cent. of the males were under this age.

The highest incidence of phthisis judged by the notifications was in Bishop's Castle (4.3), Church Stretton Urban (4.0), Dawley (3.0), Burford (3.0), and Bridgnorth Urban (2.8). It will be noticed that most of these are very small districts, and consequently the figures for one year are of little value.

The highest death-rates from phthisis for the year were in Bishop's Castle 4.96, Oswestry Borough 1.60, Chirbury 1.51, and Dawley 1.30.

*Bishop's Castle*.—Dr. Gepp says :—" I made special enquiry into the fatal cases of last year, and in the majority there was considerable doubt as to their having contracted the disease in the District."

" It is clear that in so small a population a few introduced fatal cases will seriously affect statistics, but it must be accepted that in recent years a heavy phthisis mortality has occurred in the Borough, and every effort should be made to prevent the spread of infection in every case arising."

*Oswestry Borough*.—No comment is made on the high death-rate.

*Chirbury*.—Dr. Woods says :—" This (tuberculosis) is still very rife in the District.

*Wenlock*.—Dr. Gepp says :—" The death-rate from phthisis in the Borough has shown no tendency to a reduction in the past 12 years, and I have attributed the comparatively high rate to conditions of bad housing and of poverty, assisted to some extent by certain industries associated with dust."

Table 10 gives the rates in the districts for the two six-year periods 1901—1906 and 1907—1912, and the percentage increase or decrease. It also gives for the period 1907—1912 the percentage above or below the average for the Urban and Rural Districts.

TABLE IO.

AVERAGE PHTHISIS DEATH-RATES FOR THE SIX-YEAR PERIODS 1901—1906 AND 1907—1912.

URBAN DISTRICTS.			Percentage increase or decrease in second period.	1907—1912 Percentage above or below the average for Urban Districts.	RURAL DISTRICTS.			Percentage increase or decrease in second period.	1907—1912 Percentage above or below the average for Rural Districts.
	1901—1906	1907—1912				1901—1906	1907—1912		
Bishop's Castle ..	1.68	1.78	+ 6.0	+ 67.9	Atcham ..	.98	.96	— 2.0	+ 26.3
Bridgnorth ..	1.56	.98	— 37.2	— 7.5	Bridgnorth ..	.67	.42	— 37.3	— 44.7
Church Stretton ..	.66	.36	— 45.5	— 66.0	Burford ..	1.33	.38	— 71.4	— 50.0
Dawley ..	.90	.82	— 8.9	— 22.6	Chirbury ..	1.25	1.45	+ 16.0	+ 90.8
Ellesmere ..	.77	.86	+ 11.7	— 18.9	Church Stretton ..	.73	.87	+ 19.2	+ 14.5
Ludlow ..	1.17	1.65	+ 41.0	+ 55.7	Cleobury Mortimer ..	.37	.84	+ 127.6	+ 10.5
Newport ..	1.33	.97	— 27.1	— 8.5	Clun ..	.84	.99	+ 17.9	+ 30.3
Oakengates ..	.72	.66	— 8.3	— 37.7	Drayton ..	.67	.71	+ 6.0	— 6.6
Oswestry ..	1.25	1.17	— 6.4	+ 10.4	Ellesmere ..	1.03	.56	— 45.6	— 26.3
Shrewsbury ..	1.35	1.12	— 17.0	+ 5.7	Ludlow ..	.49	.55	+ 12.2	— 27.6
Wellington ..	.95	1.10	+ 15.8	+ 3.8	Newport ..	.80	.78	— 2.5	+ 2.6
Wem ..	.76	.44	— 42.1	— 58.5	Oswestry ..	.85	.89	+ 4.7	+ 17.1
Wenlock ..	1.49	1.34	— 10.1	+ 26.4	Shifnal ..	.92	.52	— 43.5	— 31.6
Whitchurch ..	.84	.76	— 9.5	— 28.3	Teme ..	1.49	.70	— 53.0	— 7.9
				.	Wellington ..	.97	.71	— 26.8	— 6.6
All Districts ..	1.19	1.06	— 10.9		Wem ..	.88	.74	— 15.9	— 2.6
					Whitchurch ..	.52	.43	— 17.3	— 43.4
All Districts ..	..	..	..	..	All Districts ..	.83	.76	— 8.4	

It will be observed that there has been a slightly greater decrease in urban than in rural districts.

The Boroughs of Bishop's Castle, Ludlow and Wenlock, and the Rural District of Chirbury show excessive prevalence.

Not much was done in 1912 in the various districts with regard to the investigation and supervision of cases of phthisis notified, and most of the Medical Officers of Health welcome the suggestion that the Nurse-Inspector that will be attached to each dispensary should also act as an officer of the Local Authority, and report to the Medical Officer of Health.

During the year a report has been presented by the County Medical Officer of Health on the Treatment of Tuberculosis under the National Insurance Act, 1911, and also the outline of a scheme for the Treatment and Prevention of Tuberculosis in the County of Salop. The scheme which deals with all persons, insured and uninsured, has been approved generally by the County Council.

It consists of :—

- (1) Dispensaries, 9 in number, with their staff ;
- (2) Sixty sanatorium beds ;
- (3) Fifty beds for isolation of advanced cases, for acute cases and for observation purposes.

The scheme, when complete, provides for dispensaries at Shrewsbury, Wellington, Oswestry, Whitchurch, Market Drayton, Ironbridge, Bridgnorth, Ludlow, and Craven Arms. The localities for dispensaries have been fixed solely with regard to the convenience of the patients attending. It is proposed that patients shall be allowed to attend the dispensary most conveniently situated.

The dispensary staff, when the scheme is complete, will probably consist of—

- A senior and two assistant tuberculosis officers ;
- Eleven nurse-inspectors ;
- A combined laboratory assistant and clerk.

It is suggested that the nurse should act in the capacity of nurse to the dispensary and inspector under the local Medical Officer of Health for the purpose of the Tuberculosis Regulations. In most of the districts the nurse would probably also be able to act as a health visitor for the County Council under the Notification of Births Act, if adopted by the County Council, and undertake certain duties in connection with school nursing where there are no district nurses. By this arrangement, great economy and efficiency will be brought about, and the work of the Sanitary Authorities will be satisfactorily linked up with that of the County Council.

In order to make the work of the Nurse-Inspector more effective, it is desirable that she should be appointed as a joint officer of the County Council and the Local Sanitary Authority. This arrangement is strongly advocated by the Local Government Board.

It is proposed that the 60 sanatorium beds shall be provided by enlargement of the existing accommodation at Shirlett, and for this purpose negotiations have been entered into with the Association for the Prevention of Consumption.

It is proposed that, apart from the sanatorium, there shall be about 50 beds. The majority of these beds will be for the isolation of advanced and dangerously infectious cases, but probably about 10 beds will be required for diagnostic purposes in doubtful cases so that the patients may be kept under more or less continuous observation for 10 or 12 days. The hospital beds may also be used for acute cases, until the acute symptoms have subsided and the cases become suitable for a sanatorium. They can be used for short courses of educational treatment for patients too far advanced for sanatorium treatment, but they cannot be used for prolonged curative treatment. These cases can only be dealt with in a sanatorium.

A hospital for advanced cases should, where possible, be within fairly easy reach of the patient's home. The observation beds must be in close association with the dispensary administration, so that they can be properly utilised by the tuberculosis officers. So far as possible the hospitals will be provided in connection with infectious diseases hospitals.

It should be clearly understood, that in the scheme for the prevention of consumption, it is the dispensaries, together with the beds for advanced cases, that we shall have principally to rely upon. It is by means of these agencies that we hope to discover cases early, before they become infectious, and when ordinary attention at home will effect a cure, and also to limit infection either by education and supervision or by isolation in hospitals. A sanatorium, although a much less essential part of the scheme from the point of view of prevention, is undoubtedly desirable. From the point of view of the individual it is important, as it usually provides the best form of treatment possible. It is doubtful, however, if the curative effect of a sanatorium can have much influence in the elimination of the disease. Besides its curative effect, a sanatorium has a distinct educational value, and it is also an agent in bringing about early diagnosis. This arises from the fact that patients are likely to come forward earlier, and medical men to make a definite diagnosis earlier, if good means of treatment are available.

A word of warning is perhaps necessary lest the very important measures under such a scheme, directed against the *infection* of tuberculosis, should be regarded as the only or most important work of public health authorities in dealing with this disease. If these measures are accompanied

by a firm determination to get rid of all harmful conditions of living, which are known to be or may be proved to be important factors in the production of tuberculosis, great good must accrue. The knowledge gained from the careful investigation of every known case of tuberculosis, should be of the greatest help in forwarding and guiding into proper channels this work of social amelioration. On the other hand, if by concentrating our efforts on the prevention of the spread of infection, we lose sight even to a small extent of what are termed the "predisposing causes" of consumption, the results are likely to be disappointing. For this reason there should be the closest possible association between this new work and the work of Sanitary Authorities.

*Public Health (Tuberculosis) Regulations, 1912*, came into force on February 1st, 1913. They deal with the notification and treatment of tuberculosis. All the previous Tuberculosis Regulations are revoked, so that now notification is under one set, instead of three sets of regulations. The present regulations differ in some important particulars from the old ones.

All forms of tuberculosis have now to be notified, whereas previously notification was limited to pulmonary tuberculosis. A case shall be deemed one of tuberculosis when the medical practitioner "has arrived at this conclusion from evidence other than that derived solely from tuberculin tests applied to that person." In other words, a reaction to tuberculin alone without signs or symptoms does not justify notification.

The duties of the Medical Officer of Health have been very little altered, with the exception that under the new regulations he has to forward each week to the County Medical Officer of Health, every notification received by him with certain details. It is also specially stated that he shall "take such steps as are necessary or desirable for investigating the source of infection, for preventing the spread of infection, and for removing conditions favourable to infection." The words in italics are new.

The powers and duties of Local Authorities are the same as those contained in the previous regulations. They extend to medical and other assistance for the detection, prevention of spread of infection, and removal of conditions favourable to infection, also to the provision and distribution of information respecting tuberculosis.

There are slight modifications in the conditions governing notification, e.g., School Medical Inspectors have to notify as soon as practicable after the end of each week instead of within 48 hours; a case at an Institution must be notified to the Medical Officer of Health of the district in which the patient lives and not to the Medical Officer of Health of the district where the Institution is situate; the Medical Officers of Poor Law Institutions and Sanatoria,\* besides notifying in the ordinary way (*i.e.*, within 48 hours) all cases of tuberculosis diagnosed by them in the institution and not known to have been previously notified, have also to send after the end of each week lists of cases admitted and discharged as tuberculosis during the week. The lists of admissions have to be sent to the Medical Officers of Health of the districts in which the patients live, and the lists of discharge, to Medical Officers of Health of the districts to which the patients are discharged. Notifications have to be sent in a sealed envelope.

The register of notifications is to be kept in the custody of the Medical Officer of Health, and is to be open to inspection only by (1) a person specially authorised by the Local Authority, (2) the County Medical Officer of Health, (3) a School Medical Inspector or (4) an Officer of a Government Department authorised by that department.

Every notification and every document relating to a person notified under these Regulations shall be regarded by the Medical Officer of Health, and by every person who has access thereto, as confidential.

\* "Sanatoria" here means sanatoria approved by the Local Government Board under the National Insurance Act.

Great importance is attached by the Local Government Board to the confidential character of these notifications, and to the necessity of conducting the inquiries so as not to cause any annoyance or impose any restriction.

In the letter from the Local Government Board accompanying the Order, the important position of Sanitary Authorities in the prevention of tuberculosis is pointed out, and their relation to the work under the National Insurance Act is generally indicated.

The notification of every case of tuberculosis to the County Medical Officer of Health was made necessary on account of the important duties with regard to tuberculosis that are likely to fall upon the County Council in connection with the National Insurance Act. It is essential that the County Medical Officer of Health should be aware of every notified case of tuberculosis throughout the County, and for this purpose all cases notified prior to these Regulations coming into force have been extracted from the local registers. Arrangements have yet to be made by which the County Medical Officer of Health will be at once informed of the death of any tuberculous patient.

#### CANCER.

Cancer caused 268 deaths during the year, compared with 265 in 1911, 298 in 1910, and 261 in 1909.

For the last two years the deaths have been carefully allocated to the districts that they really belonged to. It was anticipated that this would add materially to the number of deaths in the County, but apparently it has not had such a result.

The death-rates in the various districts will be found on Table I. Urban and Rural. The districts with the highest rates for the year were :—Whitchurch Rural 2.06, Ellesmere Urban, 2.05, Church Stretton Urban 2.0, and Newport Urban 1.85. The rate for the combined rural districts was again higher than that of the combined urban districts.

As explained in previous reports cancer rates are determined very much by the age distribution of the population. Other things being equal, a district with a large proportion of old people will have a high cancer rate, and districts with a large proportion of young people will have a low cancer rate.

The following table calculated on the population over 45 years of age gives a much more reliable indication of the incidence of cancer :—

TABLE II.  
CANCER DEATH-RATES CALCULATED UPON THE POPULATION OVER 45 YEARS OF AGE.

URBAN DISTRICTS.						RURAL DISTRICTS.					
	1912	1900 to 1912		1912	1900 to 1912		1912	1900 to 1912		1912	1900 to 1912
hop's Castle	5.0	3.6	Oakengates ..	2.9	4.1	Atcham ..	4.7	3.8	Ludlow ..	5.7	3.5
dgnorth ..	6.0	5.1	Oswestry ....	2.1	4.1	Bridgnorth ..	3.9	4.0	Newport ..	4.6	5.0
urch Stretton	7.4	3.8	Shrewsbury ..	2.6	4.4	Burford ..	0.0	3.8	Oswestry ..	5.9	4.7
wley ..	6.4	4.7	Wellington ..	2.7	4.8	Chirbury ..	3.3	3.5	Shifnal ..	4.8	4.0
esmere ..	7.6	5.1	Wem ....	5.4	4.7	Church Stretton ..	2.3	3.6	Teme ..	2.2	4.4
Idlow ..	5.1	6.2	Wenlock ....	5.5	4.2	Cleobury Mortimer	2.6	3.6	Wellington ..	2.6	3.5
rpert ..	6.9	5.8	Whitchurch ..	5.7	4.9	Clun ..	5.5	4.7	Wem ..	4.1	3.5
mbined Urban Districts .. .. ..						Drayton ..	5.7	4.8	Whitchurch ..	8.1	4.3
						Ellesmere ..	4.4	3.7			
mbined Rural Districts .. .. ..						Combined Rural Districts .. .. ..				4.5	4.0

Taking the 13-year period it will be noticed (1) that the rural districts had a lower rate than the urban districts, (2) that the highest rates were in the old towns of Ludlow, Newport, Bridgnorth and Ellesmere, (3) that there was no markedly excessive prevalence of cancer in any district.

In previous reports it has been shown that the apparent excess of cancer in this County over the rest of England and Wales is entirely due to the age distribution of the population, and that when this is allowed for, there is slightly less cancer here than in the whole country.

#### OPHTHALMIA NEONATORUM.

(Inflammation of the eyes of the new-born infant).

The inclusion of this disease amongst those to which the Infectious Disease Notification Act applies was considered at a meeting of the Public Health and Housing Committee on April 2nd, 1910, and a resolution in favour of notification forwarded to the Local Government Board. Since then the movement for controlling the disease has made some progress, particularly in the County of Stafford, and it seems desirable that it should receive further consideration with the object of getting practical steps taken. As regards the importance of this matter it is only necessary to say that the disease causes about one-third of the cases of permanent blindness. The following extract from the Annual Report of the Birmingham Royal Institution for the Blind (1909—1910) puts this matter clearly :—

"The most destructive of these diseases is OPHTHALMIA of new-born infants. Over one-third of the present inmates of this institution owe their blindness to this cause, and the same high proportion has been found in other schools for the blind. It is not too much to say that in nearly all these cases the eyesight might have been saved by proper treatment at the commencement of the disease. The disaster usually arises through ignorance of the danger and consequent delay in obtaining medical treatment."

The two practical steps that are necessary are :—

- (1) That the disease shall be added to the list of notifiable diseases ;
- (2) That provision should be made for medical attendance and nursing under sec. 133 of the Public Health Act, 1875, and Sec. 67 of the Public Health Acts Amendment Act, 1907.

All the sanitary authorities were communicated with in 1910 and asked to give the question of notification their consideration. The authorities have since been urged from time to time to make this disease notifiable. The only objection that has been raised against taking this step is that the disease is rare in the district. This obviously is not a sound objection, for if the disease is infrequent, the expense is correspondingly small ; and if one child can be saved from blindness the trouble and expense is amply justified.

The following authorities have made the disease notifiable or have indicated their intention to do so :—The Urban Districts of Bishop's Castle, Church Stretton, Dawley, Ludlow, Oakengates, Oswestry, Shrewsbury, Wellington, Wem, and Whitchurch ; and the Rural Districts of Atcham, Church Stretton, Clun, Drayton, Ludlow, Newport, Shifnal, Wellington, Wem and Whitchurch.

The following authorities have so far taken no action :—Bridgnorth and Ellesmere Urban Districts, and the Rural Districts of Bridgnorth, Burford, Chirbury, Cleobury Mortimer, Ellesmere, Oswestry and Teme.

Only one case was notified during the year.

## CEREBRO-SPINAL FEVER AND ACUTE POLIOMYELITIS.

These two diseases are now compulsorily notifiable under the Public Health (Cerebro-spinal Fever and Acute Poliomyelitis) Regulations, 1912, which came into force on September 1st, 1912. Previous to this date the diseases were voluntarily notifiable in many of the districts. One case of cerebro-spinal fever and three of poliomyelitis were notified.

## ACCIDENTS AND DISEASES OF PARTURITION.

There were 15 deaths from accidents and diseases of parturition apart from puerperal fever, 7 in the urban districts and 8 in the rural. The numbers in previous years were 17 in 1911, 12 in 1910, 14 in 1909, 23 in 1908, 15 in 1907, 14 in 1906, and 25 in 1905.

## PREVENTION OF DENTAL CARIES.

The following facts show the extreme prevalence of this condition :—

Of 4,207 children at the age 5—6, examined in the Elementary Schools of the County in 1912, **no less than 1,112 had 10 or more decayed teeth.**

Only 3 children in 200 children at the age of 12 had teeth free from decay.

The average number of decayed teeth per child at 5 years of age was nearly 7, and at 12 years of age was 5.

Amongst the candidates examined for training as nurses by the County Council, I do not remember one instance of good teeth. The following numbers represent the teeth decayed or lost in the last 10 candidates examined :—22, 28, 16, 13, 22, 15, 17, 21, 31, 24. It must be remembered that these are young women in the prime of life.

Notwithstanding the large number of candidates for the army who are rejected on account of dental caries, there were close upon 3,000 soldiers invalidated home during the Boer War on account of bad teeth.

There is strong proof that this appalling and disgusting condition has to a great extent arisen during the last 50 to 100 years, and *most rapidly* during the period of our greatest sanitary progress. This must make one pause to consider whether those responsible for the public health are taking a sufficiently wide view of the subject.

It is difficult to estimate the harm that arises from dental caries and other septic mouth conditions, but there can be no doubt that it is very great. The wrong methods of feeding and in particular the absence of mastication, which produce dental caries must also have a far reaching evil effect upon the economy of the body. Once an important physiological law is departed from, it is impossible to predict where the evil will end. It is more than probable that many of the diseases of the gastro-intestinal system that are extremely prevalent at the present time are primarily due to some such departure.

Without entering into detail it may be broadly stated that injury to health from dental caries and oral sepsis arises principally from inability to masticate food and from the absorption of septic matter and disease germs into the blood. It is being recognised more and more every year that a diseased and unhealthy mouth is the starting point of many grave diseases, and also that such a condition of the mouth aggravates every acute and chronic illness. This is now thoroughly understood, and one of the first steps in dealing with a case of consumption or chronic ill-health is to see that the mouth is thoroughly attended to.

Although dental caries and oral sepsis rarely figure as a cause of death, there can be little doubt that this condition shortens life in a large proportion of the population, and what is of more consequence it is probably of all preventable conditions or diseases the one that is responsible for most ill-health and inefficiency.

Regarded also from the financial side, it may be shown apart altogether from the better health and better earning capacity of the individual, but simply as a saving of expenditure on dental treatment, that a vigorous campaign for the prevention of dental caries carried out by every means in our power would be a very paying investment.

Hitherto the poorer part of the population has been without dental treatment. This cannot continue indefinitely, and it will, in the near future, be recognised that dental treatment should be within the reach of every person.

I have estimated that thorough dental treatment for the elementary school children of this County would cost about £5,000 a year. This is for 8 years of life only, and must be multiplied many times to cover the whole period of life.

From this point of view alone, is it not worth while to commence at once to reduce the amount of dental decay to a minimum?

Without stating that every problem in connection with the cause of dental caries has been thoroughly worked out, it may fairly be said that for practical purposes the cause is known and its prevention is understood. As Sir George Newman says:—"It cannot be too clearly emphasized that by far the most important factor in the production of dental caries in children is unsuitability in the character of the diet provided from infancy onwards. The immediate cause of the disease is the accumulation about the teeth, particularly in the interstices of the teeth and in the interdental spaces, of fermentable carbo-hydrate material."

*Intelligent parents with the requisite knowledge can with a fair amount of certainty bring up their children so that they will have good teeth free from decay.*

It is pathetic that at the present time the children of careful parents have usually the worst teeth. The extra care given to the children results in the more rapid destruction of their teeth.

A diet which will prevent dental caries must be one that requires vigorous mastication and must leave the teeth clean after each meal. Such a diet is within the reach of the poorest, and in some respects if followed out would mean a considerable saving on present methods of feeding, e.g., the money now spent on "sweets" would in many poor households be sufficient to pay the contributions under the Insurance Act.

Short directions, quite easy to observe, putting these ideas into a simple practical shape, have been drawn out for circulation through the schools.

Without detailing the measures necessary for this work it may be stated that all mothers should be instructed in the method of feeding their children, and that the children should be kept under periodic observation at least until they go to school and come under the inspection provided by the Local Education Authority.

This work should be carried out by Sanitary Authorities, or by the County Council doing the work of Sanitary Authorities under the Notification of Births Act.

The Education Authority is doing something to forward this work in schools, but probably much more can be done.

Every effort should be made to bring this matter before the public, and as a preliminary I would suggest that it be brought prominently under the notice of every Sanitary Authority in the County.

The need for a campaign to prevent the conditions above described is most urgent. Each year of delay means another 1,200 children in the County who will have at the age of 5, ten or more decayed teeth, and about 1,800 children who will have five to ten decayed teeth. It is quite impossible by treatment afterwards to remedy this most disastrous start in life.

## NOTIFICATION OF BIRTHS ACT AND THE EMPLOYMENT OF HEALTH VISITORS.

In previous Annual Reports I have pointed out that preventive medicine in the future is likely to be to a great extent personal. Many diseases and conditions which hitherto have been considered to be outside the scope of sanitary authorities, are now known to be preventable, many of them much more preventable than some of the so called "preventable diseases." The personal factor in the spread of infectious diseases is now recognised as the most important one, and even in such a material matter as the housing of the working classes, the conduct of the tenant is at least of equal importance to the structure of the house. We have in the atrocious condition of teeth of the present generation an instance of the havoc that can be created by the neglect of certain elementary physiological laws, under the artificial conditions of civilisation. It certainly is an imperative duty of everybody responsible for the public health, to see that the people are instructed in the elementary principles of healthy living, and that the advances made in our knowledge in this direction are not allowed to remain wasted for many years to come.

Unfortunately, under present conditions, the great body of medical practitioners, upon whom much of this work should fall, are not from the nature of their employment and payment in a position to carry it on to any considerable extent. One must fall back therefore upon health visitors and district nurses. It is needless to say that for such work, persons of intelligence good education and thorough training are required.

Remarks on the importance of the work of health visitors are contained in the sections of this report dealing with infantile mortality and the prevention of dental caries. In many of the district reports the adoption of the Notification of Births Act is recommended, and the important work that could be carried out by health visitors is pointed out.

In the report for the Borough of Shrewsbury, the only district in the County in which the Act has been adopted, the utility of this work is spoken of in the highest terms. All the other districts in the County have been communicated with and their attention drawn to the Act, but none of them have so far adopted it.

A communication has been received from the Local Government Board urging that the Act should have prompt consideration by the Local Sanitary Authorities and by the County Council.

### SCHOOLS AND SCHOOL CLOSURE.

The medical inspection of schools and school children of the whole county, with the exception of the Borough of Shrewsbury, is dealt with in a separate report to the Education Committee.

It will suffice here to state that the inspection is carried out by two medical inspectors, and in the Borough of Wenlock by three practitioners, and that the work is supervised by the County Medical Officer of Health, who is also the School Medical Officer. There are no school nurses at present except in the Borough of Wenlock, where they are provided by the Lady Forester Trust.

In the Borough of Shrewsbury the Medical Officer of Health is the School Medical Officer, and there is one school nurse.

An inspection of the school premises is made at each visit of the Medical Inspectors, and the recommendations for improving the sanitary conditions are sent to the Secretary for Elementary Education. In the case of voluntary schools, these recommendations are forwarded to the managers for their consideration.

During the year the following cases of infectious disease were notified by the teachers :—							
Measles .. ..	583	Chicken-pox ..	603	Impetigo ..	..	255	
Whooping Cough .. ..	899	Mumps ..	188	Scabies ..	..	71	
Scarlet Fever .. ..	186	Ringworm ..	349	Other Diseases ..	..	402	
Diphtheria .. ..	44						

Under Article 45 (b) the School Medical Officer advised the closure or approved of the closure of 93 schools for the following reasons :—27 for measles, 7 for chicken-pox, 24 for whooping cough, 5 for scarlet fever, 21 for influenza, 1 for diphtheria, 4 for mumps, 1 for sore throats, and 3 for other causes.

Under Article 57, 2 schools were closed by the Sanitary Authority on the advice of the District Medical Officer of Health :—1 for influenza and 1 for scarlatina.

In order to facilitate the co-operation of the District Medical Officers of Health and the School Medical Officer in the matter of school closure, and in order to provide a means of acting promptly, an arrangement has been made in accordance with the suggestion in the conjoint memorandum. If the Medical Officer of Health thinks a school should be closed, he informs the Managers through the Head Teacher, and forwards to the School Medical Officer for his formal approval, a form advising closure, with reasons for closure. This scheme prevents any unnecessary delay and is working well.

#### BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Quarters of 1912.			For Typhoid Fever. Widal's Reaction.		For Diphtheria.		For Phthisis.	
First	..	..	Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
Second	..	..	3	11	37	91	27	57
Third	..	..	0	3	31	67	27	82
Fourth	..	..	1	12	72	134	19	77
Whole Year	..	..	0	7	63	182	31	84
			4	33	203	474	104	300
			37		677		404	

The total number of specimens sent was 1,118, compared with 1,212 in 1911, 1,424 in 1910, 827 in 1909, 620 in 1908, 497 in 1907, 393 in 1906, and 299 in 1905.

This further decrease in the number of specimens submitted is more than accounted for by the smaller number of diphtheria swabs examined, consequent on the lessened prevalence of diphtheria. The number of specimens of sputum examined during the year increased from 234 to 404.

It is very much to be desired, that every case of diphtheria should be examined for freedom from infection, and with this object in view, a letter was written to all medical practitioners in the County, in the year 1908. The following figures for the four quarters of the year 1912 show the extent to which bacteriological examination is used to determine freedom from infection.

Quarters of the year 1912.					Number of Positive Cases.	Number of these cases declared free by bacteriological examination.
First	..	..	..	..	28	20
Second	..	..	..	..	20	11
Third	..	..	..	..	43	27
Fourth	..	..	..	..	30	18

TABLE V.  
SHOWING VACCINATION OF INFANTS BORN IN 1911 AND FIRST HALF OF 1912.

VACCINATION DISTRICTS.	Births.	Successfully Vaccinated.	Insusceptible of Vaccination.	Certificates of Conscientious Objection.	Died Unvaccinated	Vaccination Postponed.	Removed out of District.	Unaccounted for.	NUMBERS EXPRESSED AS PERCENTAGES OF BIRTHS REGISTERED.		
									Unvaccinated including (1) Conscientious Objectors. (2) Postponed. (3) Unaccounted for.		
ATCHAM .. ..	1106	743	2	222	78	7	37	17	67.2	20.1	22.2
BRIDGNORTH .. ..	333	190	—	84	22	7	12	18	57.1	25.2	32.7
CHURCH STRETTON .. ..	122	105	1	12	4	—	—	—	86.1	9.8	9.8
CLEOBURY MORTIMER .. ..	226	138	—	70	14	1	3	—	61.1	31.0	31.4
CLUN .. .. ..	191	121	—	48	14	1	6	1	63.4	25.1	26.2
DRAYTON (Shropshire Part)	277	187	—	53	22	7	8	—	67.5	19.1	21.7
ELLESMORE .. .. ..	205	158	—	30	14	—	3	—	77.1	14.6	14.6
LUDLOW .. .. ..	344	189	—	119	24	5	7	—	54.9	34.6	36.0
MADELEY .. .. ..	545	330	2	156	44	5	8	—	60.6	28.6	29.5
NEWPORT .. .. ..	214	136	—	59	10	4	5	—	63.6	27.6	29.4
OSWESTRY .. .. ..	684	398	1	205	57	12	7	4	58.2	30.0	32.3
SHIFNAL .. .. ..	278	142	—	63	28	6	39	—	51.1	22.7	24.8
WELLINGTON .. .. ..	636	336	1	225	43	2	28	1	52.8	35.4	35.8
WEM .. .. ..	226	165	1	45	12	1	2	—	73.0	19.9	20.4
WHITCHURCH .. .. ..	188	104	—	61	12	4	7	—	55.3	32.4	34.6
PARISHES OF CHIRBURY AND WORTHEN IN THE FORDEN UNION .. ..	73	44	—	6	4	—	1	18	60.3	8.2	32.9
TOTAL .. .. ..	5648	3486	8	1458	402	62	173	59	61.7	25.8	27.9
<b>First Six Months of 1912.</b>											
ATCHAM .. .. ..	566	359	1	137	31	12	18	8	63.4	24.2	27.7
BRIDGNORTH .. .. ..	160	89	—	48	10	1	2	10	55.6	30.0	36.9
CHURCH STRETTON .. .. ..	54	39	—	10	2	—	3	—	72.2	18.5	18.5
CLEOBURY MORTIMER .. .. ..	115	64	—	38	6	4	—	3	55.7	33.0	39.1
CLUN .. .. ..	106	58	—	41	2	1	4	—	54.7	38.7	39.6
DRAYTON (Shropshire part)	118	84	1	20	9	3	1	—	71.2	16.9	19.5
ELLESMORE .. .. ..	79	57	—	10	8	2	2	—	72.2	12.7	15.2
LUDLOW .. .. ..	194	113	—	54	12	7	8	—	58.2	27.8	31.4
MADELEY .. .. ..	281	165	—	92	18	5	1	—	58.7	32.7	34.5
NEWPORT .. .. ..	94	58	—	31	2	—	3	—	61.7	32.9	32.9
OSWESTRY .. .. ..	301	149	—	96	30	10	1	15	49.5	31.9	40.2
SHIFNAL .. .. ..	110	70	—	17	9	2	8	4	63.6	15.5	20.9
WELLINGTON .. .. ..	345	170	—	139	20	2	13	1	49.3	40.3	41.2
WEM .. .. ..	116	80	—	27	7	1	1	—	69.0	23.3	24.1
WHITCHURCH .. .. ..	91	49	—	29	4	4	5	—	53.8	31.9	36.3
PARISHES OF CHIRBURY AND WORTHEN IN THE FORDEN UNION .. ..	27	17	—	2	1	—	1	6	63.0	7.4	29.6
TOTAL .. .. ..	2757	1621	2	791	171	54	71	47	58.8	28.7	32.4



## VACCINATION.

I have been able to compile the vaccination statistics through the courtesy of the vaccination officers, who have kindly supplied me with all particulars.

Reference to Table 12 shows that the progressive decline in efficiency of vaccination, notified in previous reports, continued during 1911 with little or no abatement.

The following figures are percentages of unvaccinated children for the years 1893—1911:—

1893—97	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
11.0	10.8	8.3	5.4	4.4	4.0	3.0	3.4	3.9	5.0	7.4	15.9	20.7	25.6	27.9

The great decrease in vaccination since 1905 has been due almost entirely to the increase of conscientious objectors. This is clearly shown by the following figures:—

Conscientious objection certificates granted in each year expressed as a percentage of the births in that year:—

1903	1904	1905	1906	1907	1908	1909	1910	1911	1st half of 1912
1.3	1.7	1.7	2.4	5.5	14.0	18.8	23.0	25.8	28.7

Percentage of children escaping for other reasons than conscientious objection:—

1.7	1.7	1.8	2.6	1.9	1.9	1.9	2.6	2.2
-----	-----	-----	-----	-----	-----	-----	-----	-----

The districts with the least amount of vaccination were:—Ludlow 36.0 per cent. unvaccinated, Wellington 35.8, Whitchurch 34.6, Bridgnorth 32.7, Oswestry 32.3, and Cleobury Mortimer 31.4. There were only two districts in which less than 20 per cent. of the children escaped vaccination, viz.:—Church Stretton 9.8, and Ellesmere 14.6.

In another five or six years, if this rate continues, about a quarter of the children attending the infant schools will be unvaccinated.

The position we are quickly drifting into has not been sufficiently appreciated, nor does it seem likely that public attention will be aroused except through a serious epidemic. It is in non-epidemic times, such as the present, that we should face the question calmly, but fully, and prepare for the grave situation that is inevitably in store for us, unless the present policy with regard to vaccination is altered.

It is argued that with perfect machinery small-pox can be grappled with, even though vaccination is imperfect. It is possible that this may be so, but there is no proof of it. The isolated examples of towns, where this has been done more or less successfully, proves nothing, for every locality is protected to a great extent, far greater than is imagined, by the preventive measures of other localities. If vaccination falls into abeyance in the whole country, an entirely different problem will be created.

If vaccination cannot be improved, and it is difficult to see how it can, under present conditions, it is essential that the other precautions against small-pox should be more perfectly organised. Hospital accommodation for this disease, which would be quite unnecessary in a properly vaccinated community, must be available and ready for every district.

I have in previous reports expressed my opinion that the measures taken to prevent epidemics in this County in the years 1902, 1903, and 1904, would have been totally inadequate if a large proportion of the population had not been protected by vaccination.

TABLE 12.

## PERCENTAGE OF UNVACCINATED CHILDREN IN THE YEARS 1893—1911.

UNIONS.	1893-1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Atcham ..	11.9	9.4	6.7	4.4	3.7	4.0	1.9	2.9	2.7	3.9	5.8	8.7	12.0	17.0	22.2
Bridgnorth ..	7.1	8.3	8.6	5.3	6.5	4.2	2.9	2.7	1.7	4.7	5.3	20.9	24.9	27.1	32.7
Church															
Stretton ..	2.4	3.2	.9	2.8	2.5	1.7	1.4	1.6	.8	3.8	2.1	4.5	5.4	9.1	9.8
Cleobury															
Mortimer ..	4.8	5.4	6.4	4.6	6.3	5.5	1.7	4.0	4.6	6.9	12.8	17.9	23.1	26.9	31.4
Clun ..	34.2	18.8	12.4	11.2	9.0	9.5	4.4	6.8	9.5	4.7	9.7	18.1	30.4	26.7	26.2
Drayton ..	1.7	3.6	4.2	4.8	2.8	2.2	.3	1.7	1.8	1.3	4.4	11.9	10.5	13.3	21.7
Ellesmere ..	2.9	1.6	3.0	2.9	3.2	1.1	1.9	1.1	1.7	2.7	4.9	6.7	10.3	10.8	14.6
Ludlow ..	7.5	9.9	6.7	7.0	5.7	4.6	3.8	5.5	5.6	6.0	12.4	29.7	34.6	38.9	36.0
Madeley ..	5.2	8.2	6.2	2.3	3.2	2.3	3.4	3.3	3.5	3.8	5.5	16.8	20.9	29.1	29.5
Newport ..	5.3	9.6	5.9	5.6	5.4	3.5	2.6	3.9	.9	4.8	5.9	11.2	16.7	20.3	29.4
Oswestry ..	3.9	5.8	3.1	4.1	2.7	2.2	2.1	2.2	5.2	7.6	8.3	16.9	23.7	30.3	32.3
Shifnal ..	15.7	8.5	7.8	2.0	1.8	1.5	2.8	3.0	2.2	3.0	5.4	15.8	25.9	27.5	24.8
Wellington ..	39.7	33.9	23.8	9.6	6.1	7.0	4.9	4.2	3.8	5.2	8.6	22.4	28.8	38.8	35.8
Wem ..	1.6	7.5	7.9	6.3	5.2	5.1	3.9	5.0	12.9	13.3	12.1	14.4	19.5	24.4	20.4
Whitchurch ..	5.1	13.4	16.7	9.5	5.6	7.4	6.5	5.8	9.6	5.5	9.3	19.7	21.1	26.8	34.6
Total ..	11.0	10.8	8.3	5.4	4.4	4.0	3.0	3.4	3.9	5.0	7.4	15.9	20.7	25.6	27.9

## DISINFECTION.

Statements are not made in all the reports with regard to the method of carrying out disinfection, but in all or nearly all the districts disinfection of rooms and clothing, so far as means allow, is carried out either by the Sanitary Inspector or directly under his supervision.

The Sanitary Authorities in the County with steam disinfectors are Bridgnorth Urban, Wellington Urban and Rural, Ludlow Urban and Rural, Whitchurch Urban and Rural, Wem Urban and Rural, Drayton, Shrewsbury, Bishop's Castle, and Clun.

The Urban and Rural Districts of Ellesmere have made arrangements for the use of the Wem disinfecter.

Dr. Orr in his report on Shrewsbury says:—"At present, disinfection of bedding and clothing is done in an unsatisfactory manner by spraying, which only disinfects the surface and not the interior of the material. If the control of infectious disease is to be effective all clothing and bedding must be thoroughly disinfected by means of steam."

"Not only is a steam disinfecter necessary in connection with infectious disease, but School Medical Inspection has shown its necessity in dealing with the clothing of children found to be infested with vermin or suffering from scabies."

If the scheme for the provision of isolation hospitals for the County is carried through, some of the problems with regard to disinfection will be met by the provision of disinfectors at the hospitals.

TABLE VI.

## A Summary of the Small-pox Hospital Accommodation for the County.

Sanitary Districts served.	Situation of Hospital.	Number of Wards.	Total Cubic space of Wards.	Number of Beds.	Bathing Facilities.	Administration.	Structure.
(1) Chirbury Rural ..	Forden Rural District ..	2	Feet. 11,000	6	No bathroom ; moveable bath ; No taps or drain.	Nurses' sitting-room, one bedroom (7 feet by 6 feet 6 inches) Kitchen, pantry, scullery, coalshed, earth closet.	Wood and Iron on brick foundation.
Forden Rural ..							
Montgomery Borough ..							
(2) Cleobury Mortimer Rural ..	Cleobury Mortimer ..	2	11,000	8	None.	3 Nurses' rooms, kitchen, two stores, wash-house.	Double wall of wood ; roof covered with iron, on brick foundations.
Burford Rural ..							
Rock Rural ..							
Tenbury Rural ..							
(3) Ludlow Borough ..	Ludford Parish ..	2	7,560	6	Detached room, moveable bath ; No taps or drain.	Nurses' sitting-room, one bedroom, kitchen, wash-house, larder, ambulance shed.	Wood and iron supported by wooden piles.
Ludlow Rural ..							
(4) Shifnal Rural ..	The Nedge Hill, Shifnal Parish ..	2	15,500	8	Bathroom ; moveable bath ; No taps or drain.	Nurses' sitting-room, two nurses' bedrooms, kitchen, scullery, larder, wash-house, ambulance shed, earth closet.	Wood and iron on brick foundations
Dawley Urban ..							
(5) Shrewsbury Borough ..	Underdale Road, Shrewsbury ..	2		6	No bathroom ; moveable bath ; No taps or drain.	Two nurses' bedrooms, and two kitchens in ward blocks ; Cottage with 3 bedrooms.	Wood and iron on brick foundations
(6) Teme Rural ..	Kington Rural District ..	3	3,224	5	Bathroom ; moveable bath ; No taps or drain.	One kitchen, scullery, one nurses' bedroom, a wash-house, and a discharging room.	Brick
Kington Urban ..							
Kington Rural ..							
(7) Wellington Urban ..	Wellington Rural District ..	2	10,800	8	Bathroom ; moveable bath with taps and drain.	Nurses' sitting-room, two nurses' bedrooms, kitchen, scullery, larder, ambulance shed, wash-house, coal store, earth closet.	Wood and iron on brick foundations
Wellington Rural ..							
(8) Wenlock Borough ..	The Batches, Broseley ..	2	9,000	8	Bathroom ; moveable bath with taps and drain.	Nurses' sitting-room, one bedroom, kitchen, scullery, larder, wash-house and coal store.	Wood and iron on brick foundations
(9) Whitchurch Urban ..	Prees Higher Heath ..	2	10,400	8	Bathroom ; moveable bath with taps and drain.	Kitchen in the ward block, and an administration block with 4 rooms for nurses, and a kitchen, scullery, and 2 bedrooms for caretakers.	Wood and iron on brick foundations
Whitchurch Rural ..							
Wem Urban ..							
Wem Rural ..							
Drayton Rural ..							
Blore Heath Rural ..							
Overton Rural ..							



## HOSPITAL ACCOMMODATION.

The hospital accommodation and the need for further provision has been the subject of a special report during the year 1911.

In this report it was recommended that three hospital areas be formed—one for the east of the county, one for the north, and one for the south-west, and that one central hospital be established for small-pox.

The report was considered and the County Medical Officer was directed to make an inquiry under Sec. 6 of the Isolation Hospitals Act, 1893, as to the necessity for an isolation hospital for the districts of Newport Urban and Rural, Wellington Urban and Rural, Oakengates Urban, Dawley Urban, Shifnal Rural, and for that part of the Borough of Wenlock north of the river Severn. On his report a *prima facie* case was found and an inquiry held. As a result an order was made constituting the above named districts, with the exception of the part of the Borough of Wenlock, a hospital district.

A further report was made and an inquiry held as a result of a petition from the Church Stretton Urban District Council. The Urban Districts of Ludlow, Bishop's Castle and Church Stretton, and the Rural Districts of Ludlow, Church Stretton and Clun have been constituted a hospital district.

Of the three areas recommended in the report made in 1911, only one remains to be dealt with.

*Existing Isolation Accommodation.*—This, for diseases other than small-pox, consists of (1) a hospital at Shrewsbury, with 20 beds for scarlet fever; 4 beds for a second disease, and 2 beds for a third disease; (2) a small hospital at Bridgnorth, also used for small-pox; (3) a hospital of 4 beds for the Newport Urban District; (4) a hospital of 8 beds at Market Drayton for the Drayton and Blore Heath Rural Districts.

On Table VI. is given a summary of the small-pox hospital accommodation in the County.

In addition, the Atcham Rural District Council has a Berthon Hut and a small tent, but no site. The Oswestry Urban and Rural District Councils have each a site available for a hospital.

The districts without any hospital accommodation for small-pox are:—

URBAN.	Population at 1911 Census.			RURAL.	Population at 1911 Census.		
Bishop's Castle .. .. ..	1409			Atcham .. .. ..	21770		
Bridgnorth .. .. ..	5768			Bridgnorth .. .. ..	9125		
Church Stretton .. .. ..	1455			Church Stretton .. .. ..	4797		
Ellesmere .. .. ..	1946			Clun .. .. ..	6565		
Newport .. .. ..	3250			Ellesmere .. .. ..	8365		
Oakengates .. .. ..	11744			Newport .. .. ..	6005		
Oswestry .. .. ..	9991			Oswestry .. .. ..	15442		
	35563				72069		

Total population of districts without hospital accommodation for small-pox—107,632.

Nearly half the County is without any hospital accommodation for small-pox, and many of the existing hospitals cannot be said to be sufficiently ready for an emergency. As a complement to the present small-pox hospital accommodation, there can be no doubt that a central

hospital always ready would be of great value. It is absolutely essential that no obstacle should be put in the way of dealing with the first case of small-pox that should occur, but that on the contrary every facility should be placed at the disposal of the Medical Officer of Health in dealing with initial and doubtful cases.

My remarks under the heading of vaccination should show that this is a matter that should not be shelved.

#### HOUSE ACCOMMODATION.

##### HOUSING AND TOWN PLANNING, ETC., ACT.

The Housing and Town Planning Act has now been in force for three years, and the regulations under which inspection is carried out were issued in September, 1910.

Little or no work was carried out under the Act in 1910. With the exception of six districts, the Act was put into operation in 1911.

In 1912, inspections were made under the Act in all districts with the exception of Bishop's Castle (see page 71). The Act may be considered to have been in full working order during 1912, and some estimate can be formed of its probable influence.

*Number of Inspections.*—The total number of inspections under these regulations was 3,086. The total number of houses in the County is between 54 and 55 thousand, therefore on the average one house in every 18 was inspected. On the face of it this appears to be a very small proportion, as it would take 18 years at a similar rate to cover the whole district. If, however, these houses have all been selected with great care because they specially require attention, the number may not be so very markedly inadequate. To what extent this is so may be judged to some extent by a consideration of the conditions found and the action taken.

*Number of Representations of Unfitness for Habitation.*—The number of these representations was 168, or 5.4 per cent. of those inspected. This shows that there had in many districts at least been a careful selection of houses for the purposes of inspection.

The districts varied greatly with respect to the percentage of houses inspected, that were represented as unfit for habitation, e.g., in the Borough of Bridgnorth, where 161 inspections were made, no houses were so represented and no representations were made in Ellesmere Urban and Rural, Ludlow Rural, Wem Urban or Wenlock Borough. On the other hand, all the 24 houses inspected in the Cleobury Mortimer Rural District were represented as unfit for habitation; in Shifnal, 13 out of 29, in Oakengates 17 out of 70, in Oswestry Urban 15 out of 89, and in Wellington Urban 16 out of 97. It is obvious that in these districts a very careful preliminary selection must have been made.

This very marked variation in the percentage of houses represented as unfit for habitation is evidently due to a great extent to the method of procedure. In one district, a representation is made in order to get certain defects remedied, whereas in another district similar defects will be dealt with, without making a representation of unfitness, e.g., in the Wem Urban District there were defects in 109 houses out of 110, but they were dealt with, without closing orders.

The smallness of the number of "representations" in a district may be due to the good housing conditions of the district, or to the lack of alternative accommodation, or to the fact that a routine house to house inspection is being made without selection.

TABLE VII.

## Record of Sanitary Work done during the Year 1912.

Table showing the work done by the various Sanitary Inspectors; the returns are made on a uniform plan as far as possible.

SANITARY AUTHORITY.	PARTICULARS OF SANITARY MATTERS REFERRED TO IN THE ABOVE NOTICES.												Proceedings before Magistrates.																								
	Number of houses which have been inspected during the year, either in connection with outbreaks of Infectious Disease, or in consequence of complaints, or in course of a Systematic Sanitary Survey.			Total number of notices of all kinds served, including both formal and informal Notices.			Number of such notices complied with.			Letters written.			Houses to be disinfected after Infectious Disease.	Deficient or objectionable Water Supply.	New Drains to be constructed or old drains to be amended.	New Closets to be provided or old ones to be amended in construction.	Houses damp, dirty, or admitting rain, or weather, or otherwise in a bad sanitary condition.	Offensive accumulations of all kinds.	Animals so kept as to be a Nuisance.	Houses overcrowded.	Houses disinfected after infectious disease (other than phthisis).	Houses disinfected in cases of phthisis.	Privies converted to water closets.	Privies converted to earth closets.	Plans for New Houses passed.	Certificates issued for water supply to New Houses.	Houses connected to public water Supply.	Repairs to Public Pumps and Wells.	New Public Wells.	Private Wells re-constructed or improved.	Houses connected to Public Sewerage.	Lengths of New Water Mains laid.					
RURAL DISTRICTS.																																					
Atcham ..	376	145	132	536	—	—	—	—	—	32	14	97	90	56	39	12	29	10	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10				
Bridgnorth ..	930	110	102	12	—	—	—	—	—	14	3	22	17	33	15	1	1	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Burford ..	20	7	20	—	—	—	—	—	—	2	2	2	2	5	1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Clirbury ..	179	74	38	101	—	—	—	—	—	20	18	11	10	9	13	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Church Stretton ..	212	63	48	101	—	—	—	—	—	2	2	11	10	9	26	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Clebury Mortimer ..	142	38	38	37	—	—	—	—	—	2	2	9	10	10	26	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Clun ..	181	51	45	73	—	—	—	—	—	2	2	9	10	10	26	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Drayton ..	604	268	242	150	—	—	—	—	—	6	1	58	62	30	30	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Ellesmere ..	220	42	30	150	—	—	—	—	—	12	12	30	11	11	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Ludlow ..	126	54	11	60	—	—	—	—	—	12	13	22	11	11	7	24	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Newport ..	226	22	19	240	—	—	—	—	—	22	22	11	11	11	24	18	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Oswestry ..	780	181	90	300	—	—	—	—	—	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40			
Shifnal ..	730	124	118	135	—	—	—	—	—	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Teme ..	111	5	5	5	—	—	—	—	—	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Wellington ..	245	104	20	21	—	—	—	—	—	21	21	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
Wem ..	1260	156	143	121	—	—	—	—	—	52	52	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45			
Whitchurch ..	150	27	23	26	—	—	—	—	—	4	4	11	7	14	14	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
URBAN DISTRICTS.																																					
Bishop's Castle ..	97	4	4	—	—	—	—	—	—	11	2	2	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Bridgnorth ..	1300	18	15	25	—	—	—	—	—	2	2	9	7	10	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Church Stretton ..	294	198	158	187	—	—	—	—	—	71	57	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Dawley ..	803	191	185	400	—	—	—	—	—	5	5	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Ellesmere ..	24	21	21	20	—	—	—	—	—	13	13	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31			
Ludlow ..	160	72	62	30	—	—	—	—	—	20	17	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16			
Newport ..	222	71	62	131	—	—	—	—	—	49	68	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36			
Oakengates ..	100	214	184	155	—	—	—	—	—	57</																											

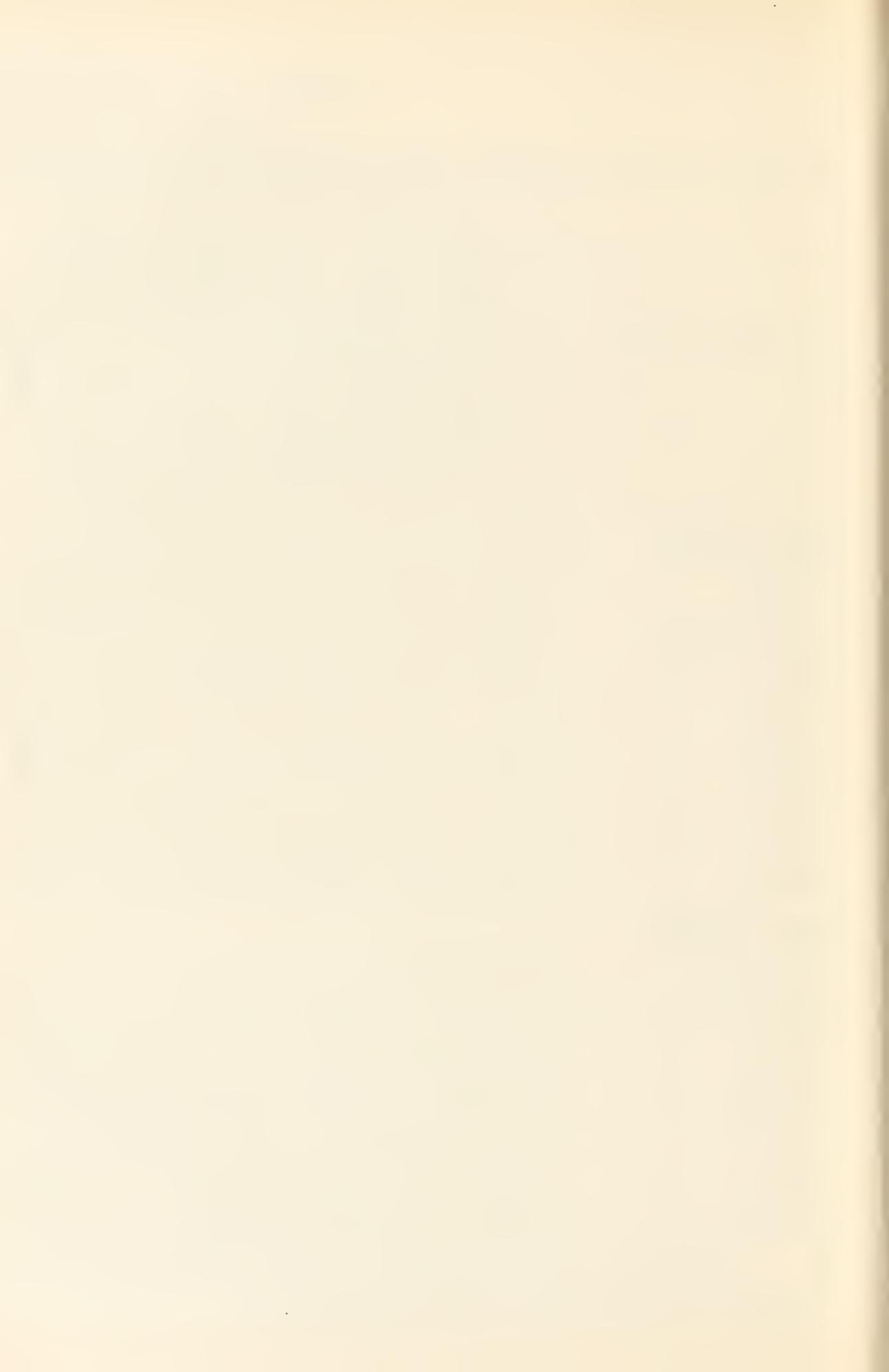


TABLE VIII.  
HOUSING AND TOWN PLANNING, ETC., ACT, 1909.  
REGULATIONS UNDER SECTION 17, ARTICLE V.  
Analysis of Work done in the year under these Regulations.

\* These orders were made in respect to houses represented in 1911.

† Voluntary.

Sixteen of these were represented as unfit for habitation after the close of the year.



*Number of Closing Orders made.*—The total number of these made in the whole County was 76, equal to about one-half the number of representations made. The practice in this respect has varied greatly, for whereas with respect to 17 houses "represented" in Oakengates and 16 in Wellington Urban, all were closed, there were 15 representations in Oswestry Urban, 13 in Shifnal Rural, 6 in Chirbury Rural, and 5 in Drayton Rural, without a single closure, at least during the same year. In other instances closing orders only followed in a small percentage of houses "represented," e.g., in Atcham 15 representations were made and only 3 closing orders made, and in Bridgnorth Rural 6 representations and only one closing order.

Where a large number of representations are made and result in few or no closures, it appears as if the Sanitary Authority is not carrying out the Act, or that representations have been made without due cause.

Under Sec. 69 of the Housing and Town Planning Act it is the duty of the Clerk of a Rural District Council to "forward to the medical officer of health of the County a copy of any representation, complaint, or information, a copy of which it is the duty of the District Council to forward to the County Council under Section 45 of the Housing of the Working Classes Act, 1890."

The object of this section is to enable the County Medical Officer of Health to follow up the representations and find out whether they have been properly acted upon. The reports of the District Medical Officers now received show that in many rural districts these representations have not been forwarded.

Of the 76 houses closed, 17 were put into a fit state for habitation, leaving a balance of 59, that should in accordance with the Act have been demolished. The actual number of demolition orders made was 11, and the actual number pulled down was 18.

One must not judge of the value of the work done under the Act simply by the number of houses closed, and perhaps even greater stress should be laid upon the improvement of houses remaining occupied. Still, for the general levelling up of the housing conditions it is essential that the bad houses should be closed, and it cannot be said that the permanent closure of 59 out of 55,000 houses is a satisfactory record for the year's work. The corresponding figure for the previous year was 111.

*Defects remedied without Closure.*—The table shows that a considerable amount of work has been effected and that improvements have been brought about in roughly 2 to 3 per cent. of the houses of the County. It is doubtful, however, if such an amount of work will bring about any radical improvement.

*Houses still under consideration.*—From the large proportion of the houses inspected that are still under consideration, it does not appear, at least in some districts, that the Councils are exercising dispatch in carrying out this work. The great difficulties in dealing promptly with insanitary houses must be recognised, but when, as in Newport Urban District, only 16 houses have been inspected and 65 houses remain under consideration, presumably almost all from the previous year, it cannot be considered that the action of the Council is sufficiently prompt.

Reviewing the work under the Act for the whole County it appears to fall short of what is desirable in three particulars—

- (1) The amount of inspection.
- (2) The number of houses closed.
- (3) Promptness of action by the Councils.

The small amount of inspection is no doubt due to a great extent to the limited time that the Sanitary Inspectors have available for this work. The work of Sanitary Inspectors has much increased of recent years without corresponding facilities being granted. In districts where the work of sanitary inspector and road surveyor is combined, the sanitary work frequently suffers.

This is a matter that the County Council are directly interested in, because the Council pays half the salary of the Sanitary Inspector and consequently can insist that a proper proportion of the time of the Sanitary Inspector be given up to sanitary work.

The smallness of the number of houses closed is no doubt due in many cases to lack of other accommodation. This difficulty can only be met by the District Council providing houses where other agencies fail.

With regard to insufficiency of inspection and lack of promptness in dealing with the inspections, attention may be drawn to the following quotation from the Report of the Borough of Wenlock :—“ If these regulations are to be followed in their intentions, and the powers given by the Housing, Town Planning, etc., Act, are to be used to bring about any real improvement in housing conditions, it will be essential for the Committees to deal more rapidly and effectively with the defects found and recorded, so that a much larger number of inspections may be made. With the class of poor property which is general in the towns, I consider that 200 houses as a minimum should be inspected every year, and every effort made to make the remedying of the worst defects keep pace with the inspection. Even at the rate suggested twelve years at least would be necessary to get round the working class houses in the Borough, and the majority of these would benefit in my opinion by a systematic inspection.”

The following quotations from the District Medical Officers’ Reports deal with the necessity for the building of cottages by the District Councils :—

*Atcham.*—“ As in most Rural Districts, there is a large number of very old houses becoming worn out and needing inspection and attention in order to keep them from becoming unfit for habitation. Closure of such houses often presents difficulty in the absence of alternative accommodation, and the Council is giving the question of building of cottages their careful consideration.”

*Bridgnorth Urban.*—“ The accommodation in respect of cottage dwellings is barely sufficient for the town. The majority of cottage dwellings are on the whole satisfactory, but a considerable number are old and difficult to keep in satisfactory repair.”

*Church Stretton Urban.*—“ The Council has under consideration a scheme for the purchase of land and erection of a number of houses for the working classes. In my opinion such provision is very desirable.” There is a dearth of cottages, and in the absence of alternative accommodation it is difficult to deal with the very old houses.

*Cleebury Mortimer Rural.*—Twenty-four houses were inspected under the Housing and Town Planning Act, and represented as unfit for habitation. Ten closing orders were made. The majority of these have not been closed. A number have been put in repair without closure, and one has been demolished.

“ I beg once again to suggest to the Council that additional cottages are required in your District, that steps should be taken to provide them especially on the Clee Hill. The work done under the Housing and Town Planning Act is seriously delayed by the feeling that the closure of cottages means either overcrowding or families leaving the District. Some of the houses recently reported on in the Clee Hill District have been very bad, with holes in the roofs and very damp throughout ; they require to be demolished.”

*Ludlow Urban.*—“ Certain congested areas exist that can only be put right by the demolition of a number of cottages, and, in addition, many others owing to their great age have reached the limit of their usefulness as dwellings, and cannot much longer be considered fit for habitation. The building of a number of cottages on the outskirts of the town seems the best solution of the housing problem in the Borough. In the meantime steady and persistent effort is necessary to improve the existing cottages. Much work requires to be done in this direction.”

*Oakengates.*—“The condition of a large number of cottages calls for immediate attention, and the Council, I think, will require to exert pressure on owners to do the repairs more rapidly.”

“A certain proportion of the cottages are hardly worth the cost of repairs; a number at Mumpton Hill, The Nabb, and Wright’s Buildings are in the category. It appears to me that relief will have to be sought, by the building of cottages either by the Council, or private enterprise. A comparison between the number of houses erected during the year, viz., eight, and the normal increase of the population, which is about a hundred, will prove conclusively that overcrowding must necessarily occur, so that for two very solid reasons cottages are required, viz., for the increase of population, and for the re-placement of houses, which are dangerous to health and unfit for habitation. Eight cases of overcrowding were dealt with in the year. The type of cottage I should suggest that the Council should build is one with three bedrooms, a front and back kitchen, at a rent that would cover the expenditure and not require assistance from the rates. Six or a dozen might be put up as an experiment.

“The dearth of houses in the district is one of the chief causes contributing to the bad housing conditions in the district.

“The Council passed a resolution some months ago, that the question of building some workmen’s houses should be taken into consideration.”

*Shrewsbury.*—Dr. Orr sets out the number of houses lost to the Borough from closure or alterations during the last three years, and the number of houses that have been built, and says:—“These facts show the urgent need for good houses at a reasonable rent for the working-classes.”

*Wellington Urban—House Accommodation.*—“During the year a large amount of work has been done in inspecting houses under the Housing and Town Planning Act. The reports on 97 came before the Committee. Sixteen of them were considered unfit for habitation, and closing orders made by the Council; none of them have been put in repair and they are now due for demolition orders.”

“The chief defects found in the others were defective drainage and closet accommodation, with dampness of walls and floors, and defective paving and drainage of yards, want of troughing and defective floors, stairs, and windows. Difficulty is met with in getting the repairs executed in a thorough manner in many cases, and this adds considerably to the work of the Inspector and Committee.”

“Five cottages were demolished for street improvement, and thirteen others which had been reported for their dilapidated and insanitary condition have been purchased to provide a site for a new Post Office. No house of the cottage type was built during the year, so that the closures that have taken place, and are about to be carried out, certainly make the building of more cottages an urgent necessity. The Council have already had this under consideration, and I trust that the number of houses closed will be kept in mind when they consider the extent of their scheme.”

The only Sanitary District in which building is actually being undertaken by the Council is Shrewsbury, where a scheme for building 63 houses has been submitted to the Local Government Board, although building is under consideration at Wellington, and plans for houses have been got out.

The results of the inspection in Shrewsbury show the urgent necessity for building and the much more rapid closure of insanitary houses.

The following figures have been extracted from the 1911 Census just published. They show graphically the amount of overcrowding in the County. A comparison with the 1901 Census shows a considerable decrease of overcrowding in one and two roomed houses. The figures to the right side of the black line indicate the number of tenements occupied by more than two persons per room:—

**A**  
ADMINISTRATIVE COUNTY OF SALOP.  
1911 CENSUS.

Number of Rooms in Tenements.	Number of Tenements.	Persons per Tenement.															Total number of Persons occupying these Tenements.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 & upwards		
1	220	181	31	6	2	—	—	—	—	—	—	—	—	—	—	—	269	
2	2,923	943	815	517	327	171	85	42	15	5	2	1	—	—	—	—	7,287	
3	12,458	909	2,502	2,559	2,179	1,599	1,160	760	468	187	91	30	8	6	—	—	49,422	
4	12,994	545	2,192	2,638	2,337	1,850	1,361	969	554	322	139	58	20	6	2	1	56,109	
5	10,043	261	1,510	2,008	1,890	1,500	1,139	741	486	252	141	76	25	9	4	1	45,276	
6	5,524	127	877	1,101	1,040	806	616	372	264	162	79	46	18	11	4	1	24,970	
7	3,072	59	455	595	597	454	342	245	141	84	52	26	13	6	3	—	14,145	
8	2,250	31	230	404	420	397	266	204	125	81	49	18	12	6	3	4	11,139	
9	1,455	6	114	227	247	251	215	154	100	58	40	26	10	3	3	1	7,750	
10	3,662	25	136	361	540	566	537	455	344	236	173	104	83	33	28	41	23,047	
& upwards																		
Totals		54,601	3,087	8,862	10,416	9,579	7,594	5,721	3,942	2,497	1,387	766	385	189	80	47	49	239,414

1901 CENSUS.

1	198	146	40	11	1	—	—	—	—	—	—	—	—	—	—	—	263
2	4,101	998	1,075	826	541	306	201	87	42	11	10	3	1	—	—	—	11,715
3	8,266	542	1,491	1,683	1,412	1,095	929	542	309	162	66	24	11	—	—	—	34,050
4	13,188	583	2,238	2,462	2,339	1,924	1503	1014	600	300	149	44	32	—	—	—	57,395

**B**

## URBAN DISTRICTS.

Rooms in Tenements.	Number of Tenements.	Persons per Tenement.															Total number of Persons occupying these Tenements.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 & upwards	
1	97	82	12	3	—	—	—	—	—	—	—	—	—	—	—	—	115
2	1,450	477	383	258	163	90	41	21	10	5	1	1	—	—	—	—	3,658
3	5,527	359	1,094	1,118	933	700	542	368	235	100	53	18	4	3	—	—	22,556
4	5,350	225	881	1,070	1,004	744	527	403	234	147	69	32	11	1	1	—	23,327
5	4,735	129	698	955	896	707	521	336	228	131	67	41	15	7	3	1	21,439
6	2,872	61	466	583	562	420	300	180	139	74	42	26	11	6	2	—	12,872
7	1,548	33	266	319	301	209	147	125	63	38	25	11	6	4	1	—	6,883
8	1,081	20	127	224	208	194	117	86	50	25	11	9	6	2	1	1	5,013
9	642	1	65	131	118	104	85	54	38	20	16	6	2	1	1	—	3,165
10	1,209	10	74	150	217	193	190	160	82	50	32	28	7	9	3	4	6,740
5 up-wards																	
Totals	24,511	1,397	4,066	4,811	4,402	3,361	2,470	1,733	1,079	590	316	172	62	33	12	7	105,768

## RURAL DISTRICTS.

Number of Rooms in Tenements.	Number of Tenements.	Persons per Tenement.															Total number of Persons occupying these Tenements.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 & upwards	
1	123	99	19	3	2	—	—	—	—	—	—	—	—	—	—	—	154
2	1,473	466	432	259	164	81	44	21	5	—	1	—	—	—	—	—	3,629
3	6,931	550	1,408	1,441	1,246	899	618	392	233	87	38	12	4	3	—	—	26,866
4	7,644	320	1,311	1,568	1,333	1,106	834	566	320	175	70	26	9	5	1	—	32,782
5	5,308	132	812	1,053	994	793	618	405	258	121	74	35	10	2	1	—	23,837
6	2,652	66	411	518	478	386	316	192	125	88	37	20	7	5	2	1	12,098
7	1,524	26	189	276	296	245	195	120	78	46	27	15	7	2	2	—	7,262
8	1,169	11	103	180	212	203	149	118	75	56	38	9	6	4	2	3	6,126
9	813	5	49	96	129	147	130	100	62	38	24	20	8	2	2	1	4,585
10	2,453	15	62	211	323	373	347	295	262	186	141	76	76	24	25	37	16,307
5 up-wards																	
Totals	30,090	1,690	4,796	5,605	5,177	4,233	3,251	2,209	1,418	797	450	213	127	47	35	42	133,646

## C

Urban Districts.	Number of Tenements.	Number of those with more than two occupants per room.	Percentage of Population in Tenements with more than 2 occupants per room.	Rural Districts.		Number of Tenements.	Number of those with more than two occupants per room.	* Percentage of Population in Tenements with more than 2 occupants per room.
Bishop's Castle ..	356	5	3.0	Atcham ..	..	4,578	182	7.3
Bridgnorth ..	1,332	66	10.1	Bridgnorth ..	..	2,055	99	7.8
Church Stretton ..	270	3	1.7	Burford ..	..	283	12	7.7
Dawley ..	1,676	164	18.4	Chirbury ..	..	809	23	5.5
Ellesmere ..	447	6	2.8	Chirbury Mortimer ..	..	1,066	49	8.5
Ludlow ..	1,362	67	9.6	Cleobury Mortimer ..	..	1,412	77	9.7
Newport ..	728	33	9.1	Clun ..	..	1,512	47	5.8
Oakengates ..	2,459	241	16.9	Drayton ..	..	2,828	55	3.5
Oswestry ..	2,297	66	5.6	Ellesmere ..	..	1,739	67	6.8
Shrewsbury ..	6,538	261	7.6	Ludlow ..	..	2,048	91	7.9
Wellington ..	1,709	80	8.5	Newport ..	..	1,300	101	13.7
Wem ..	504	13	5.5	Oswestry ..	..	3,436	172	9.1
Wenlock ..	3,538	238	12.8	Shifnal ..	..	1,847	98	9.9
Whitchurch ..	1,295	47	6.8	Teme ..	..	380	12	5.6
All Urban Districts ..	24,511	1,290	10.0	Wellington ..	..	2,430	147	11.1
				Wem ..	..	1,931	40	3.8
				Whitchurch ..	..	436	6	2.4
				All Rural Districts ..	..	30,090	1,269	7.7

\* Population here referred to does not include institutions.

### WATER SUPPLIES.

The following statement shows the work that has been done during the year to improve the water supplies in the County and the suggestions made for further improvements :—

*Schemes of Water Supply or of Improvement to Water Supplies that have been initiated, partly carried out, or completed during the year—*

*Acton Burnell* (Atcham Rural District).—This supply has been considerably improved by the laying of a new main.

*Condover* (Atcham Rural District).—A small scheme has been carried out to supply Bomere and Bayston Farms.

*Cound* (Atcham Rural District).—A small extension has been made.

*Marton* (Chirbury Rural District).—A scheme for supplying this village has been sanctioned by the Local Government Board.

*Clunbury, Clunton, and Brockton* (Clun Rural District).—Separate schemes for these villages have been completed.

*Dudleston Heath* (Ellesmere Rural District).—A scheme has been got out by the Rural Council for supplying this district, and sanction has been given by the Local Government Board to a loan for £2,500.

*Craven Arms* (Ludlow Rural District).—A scheme for improving this water supply has been got out and submitted to the Local Government Board.

*Wem Urban.*—A suction gas plant capable of pumping 6,000 gallons per hour has been installed.

*Tilley* (Wem Rural District).—An application has been made to the Local Government Board for sanction to borrow £250 for works of supply to this village, and an inquiry has been held. The supply is to be taken from the Wem Urban mains.

*Ash* (Whitchurch Rural District).—An extension of the supply to six houses has been carried out.

*Schemes for new Water Supplies or for the improvement of existing Water Supplies are under consideration for—*

Sharpstones Lane, Bayston Hill .. .	Atcham Rural District.
Ryton and Cross Houses .. .	Atcham Rural District.
Worthen and Brockton .. .	Chirbury Rural District.
Chapel Lawn .. .	Clun Rural District.
Norton-in-Hales .. .	Drayton Rural District.
Brand Hill .. .	Ludlow Rural District.
Bucknell .. .	Teme Rural District.
Wellington Rural Parish (Lower Part) ..	Wellington Rural District.
Prees .. .	Wem Rural District.
Whixall .. .	Wem Rural District.

*Schemes for supplying the following places are now before the Local Government Board :—*

The villages of Worthen and Brockton in Chirbury Rural District.

The lower part of the Wellington Rural Parish.

Houses, on Whixall Moss, in Wem Rural District.

No definite action has yet been taken with regard to the supply of Prees.

*Recommendations with regard to existing Schemes :—*

*Church Stretton Urban.*—The following recommendations are made :—(1) The consideration of taking the whole supply from the large reservoir, or as an alternative, increasing the storage of the small reservoir or providing filtration for this water; (2) Regular inspection of the banks of the stream; (3) Periodical chemical and bacteriological analyses.

*Ludlow Urban.*—“A periodic bacterial analysis of the water is, I think, still desirable, so that any variation from the standard of purity now attained may be noted and the cause sought for.”

*Oswestry Urban.*—Improvements with regard to storage, and filtration, and also with regard to the pipe track are suggested.

In my report for 1911 I said :—The District most urgently needing water is the lower part of *Wellington Rural Parish*.—A special report has recently been made by the County Medical Officer of Health, on the water supplies of the parishes of Wellington Rural and Hadley, and in it, the alternative methods of supplying the lower part of the Wellington Rural Parish are pointed out. The District Council have again been urged to take this matter in hand promptly, and the County Council have endeavoured to remove certain initial difficulties. It cannot be too strongly insisted upon, that a scheme of supply for this District should be carried out before next summer.

The difficulties, which were considerable, have now been removed, and, as stated above, a scheme is now before the Local Government Board. This scheme will deal with a district in which the conditions of water supply are the worst in the County. With the completion of this scheme, the district of East Shropshire that was included in the Oakengates and Dawley Joint Water Bill, with the exception of certain very thinly populated parts, will be supplied with water in the following manner :—

Oakengates .. .. .. ..	by the Duke of Sutherland .. ..	from Hilton Bank.
Donnington Wood .. .. .. ..	by the Duke of Sutherland .. ..	from Lilleshall and Hilton Bank.
Dawley .. .. .. ..	by Wenlock Borough .. ..	from Harrington Well.
Hadley and Watling Street .. .. .. ..	by Wellington U.D. .. ..	from U.D. Waterworks.
Wellington Rural Parish, Upper Part ..	by Wenlock Borough through Dawley U.D. .. .. .. ..	from Harrington Well.
Wellington Rural Parish, Lower Part ..	by Wenlock Borough through Dawley U.D. .. .. .. ..	from Harrington Well.

The foregoing statement shows that fair progress is being made with the improvement of the supplies to towns and villages. Little is, however, being done with regard to the improvement of supplies to individual houses or small groups of houses. A considerable proportion of these supplies are very grossly polluted, and many can only be described as imperfectly filtered sewage. The only method of dealing with these supplies is to carry out a careful and systematic house to house inspection, and to insist upon the removal of sources of pollution and the proper construction of wells. In those cases where houses with defective supplies are more or less grouped together the most practical plan will often be for the District Council to provide a public well and pumps properly placed, and to rate the users.

It will be seen by reference to Table VIII. that the number of notices served for the improvement of water supplies under the Housing and Town Planning Act was 201. A certain additional number of notices were served under the Public Health Acts, but it hardly appears that the amount of inspection and the action taken is sufficient to produce any radical improvement in the water supplies of individual houses.

#### EXCREMENT DISPOSAL.

Speaking generally the method of disposal of excreta in the country districts is by means of privies with underground vaults. In towns where there is a system of sewers and a water supply, water-closets are becoming each year more exclusively the method of disposal.

As stated in my previous reports, the aim that sanitary authorities should keep in view are—

- 1.—In districts with a good system of sewers, sewage disposal, and water supply, **to make the water carriage system of excrement disposal universal.** The success of this system depends to a great extent on the care and precautions with which it is carried out.
- 2.—In districts without sewers or water supply, to make a good type of earth closet universal.

The following districts are sewered and have a water supply. The figures show to what extent the first of these rules is being acted upon :—

<i>Urban Districts.</i>	Water- closets.	Earth- closets.	Privies.	Conversion of Privies to water-closets.		
				1912	1911	1910
Bishop's Castle (town proper) ..	213	6	50	10	6	49
Bridgnorth (town proper) practically all.		3	2	—	—	—
Church Stretton ..	275	10	29	—	1	3
Ellesmere ..	mostly water closets	—	20	—	—	—
Ludlow ..	All water closets except	106	—	16	—	—
Newport ..	..	566	16	237	24	33
Oakengates ..	..	294	333	1204	18	22
Oswestry ..	..	2400	16	24*	—	—
Shrewsbury ..	..	..	Practically all water-closets.	—	—	—
Wellington ..	..	880	0	265	34	15
Wem ..	..	189	412	15	15	10
Whitchurch ..	..	1028	20	240	10	5
<i>Towns or Villages in Rural Areas.</i>						
Shifnal ..	..	360	35	124	34	38
Market Drayton and Little Drayton ..	857	22	408	25	28	14
Craven Arms ..	..	175	0	18	2	0
Hadley ..	..	—	—	—	—	—
Meole Brace ..	..	300	28	6	—	—

\* The privies and pail closets, with one exception, are outside the drainage area.

It must be borne in mind that a certain proportion of the privies are beyond the sewered area and therefore cannot be dealt with. It would add much to the value of this table if the number of privies inside and outside the sewered area were stated.

In some districts information is available with regard to this point, *e.g.*, only 74 out of the 240 privies in the Whitchurch Urban District are in the "town proper." The figures given in the table with regard to Bishop's Castle do not include the outlying parts of the town. Of the 20 privies in the Ellesmere Urban District 14 are on the outskirts.

It is obvious from the table, that whilst in some districts the type of the closet accommodation is satisfactory, in others there is a large amount of work to be done.

Of the districts in unsewered areas or partly sewer'd areas there is comparatively little information in these respects, but what there is goes to show that little is being done in the conversion of privies to earth closets.

District.	Number of			Conversion during the year of privies to	
	Water- closets.	Earth- closets.	Privies.	Water- closets.	Earth- closets.
Atcham Rural ..	—	—	—	—	81
Church Stretton Rural ..	75	100-200	700-800	—	3
Clun Rural ..	—	—	—	—	8
Dawley Urban ..	66	63	1179	15	37
Newport Rural ..	39	54	1088	—	6

In Chirbury and Ellesmere Rural Districts it is stated that privies are gradually being replaced by pail closets.

In many of the rural districts the conversion of insanitary privies to earth closets is urged.

The possibility of transmission of faecal matter from the privy to food in the house by means of flies has been so conclusively demonstrated that privies even in very isolated houses must be looked upon as absolutely unsatisfactory. A great effort should be made to get all privies converted to some kind of earth closet or water closet. The essential part of the management of an earth closet is that excreta shall be immediately covered with dry earth, garden mould being the most suitable. By this means not only is putrefaction stopped, but flies are prevented from gaining access to the excreta and consequently from carrying it to food.

It is hoped that, considering the importance of this work, Sanitary Authorities will take more energetic action to abolish privies, by converting them in towns to water-closets, and in the country into properly constructed earth closets.

The following are extracts from the reports bearing on sewage disposal :—

*Clun*.—"There are instances in Clun and Clungunford of privies discharging direct into running streams. I have often advised the abolition of these as unnecessary and dangerous pollutions."

The abolition of these should be insisted on and if necessary, proceedings taken under the Rivers Pollution Prevention Act.

*Dawley*.—"The District being so scattered and of semi-rural character, water carriage, though capable of much extension, will not be practicable throughout. The conversion therefore, of insanitary vault privies into pail closets, or as has been effected in some cases under the Housing Inspection, into privies with limited fixed receptacles placed above ground, should be pressed."

*Ellesmere Urban*.—"All the larger houses are provided with flush-out water-closets. The remainder are provided with pan closets of a good type, but have no water laid on for flushing purposes. This is a serious defect and steps should be taken to remedy it."

*Newport Urban*.—"In my opinion the abolition of these dangerous nuisances could be materially assisted and hastened by the Council taking definite statutory proceedings in a few cases."

*Wenlock*.—"‘Drained privies’ of very obnoxious character, are not infrequently met with. Being untrapped and unflushed the drains become very foul and freely ventilate most offensive gases through the closet seats."

#### SEWERAGE AND DRAINAGE.

The following quotations or condensed extracts from the reports deal with important works that have been carried out during the year, or with insanitary conditions that need remedying :—

*Atcham Rural*.—The Pontesbury scheme is progressing towards completion.

*Church Stretton Rural (All Stretton)*.—"I have reported previously on the drainage of this village. The exceptional feature here is the discharge of the main drain of a considerable private asylum, having a number of water-closets, directly into the brook, causing serious pollution. The Council has endeavoured to obtain the removal of this pollution by voluntary action by the owner, but without result. Under continued pressure by the County Council as to the stream pollution, the Council, in 1911, engaged a firm of engineers to survey and report as to a scheme of sewerage for this village. This report was received during last year and the estimated cost of a scheme, without purchase of necessary land, was some £1,400. The Council has had the question under consideration throughout the year, but no further steps have been taken, the Council being again in communication with the owner of the asylum."

*Cleobury Mortimer Rural.*—“ It appears to me that the time has arrived when the Council should appoint a Special Committee to deal with the sewerage, water supply and scavenging of Highley; private builders are commencing to erect houses here, and if the Highley Mining Company continue to control the sewers and water mains, trouble is bound to arise, and the private builder will always find difficulty in conforming to the By-laws. The Council ought to take over the sewers, water supply and scavenge of the district, put the footpaths and roads in decent condition, and form a special area and levy a special rate for the District.”

*Ellesmere Rural.*—“ A scheme of drainage for the village of Baschurch has been formulated, and its accomplishment is now only a question of time.”

*Ludlow Rural.*—“ At Ashford Bowdler the open sewer should be piped in. It receives the drainage from 20 houses, and is a serious nuisance to the village. I would point out that if the nuisance were a private one, the Council would not allow it to continue a day longer than necessary.”

*Wellington Rural.—Sewerage and Drainage.*—The sewerage scheme for Admaston is complete, and that for Hadley is working satisfactorily. Nothing further has been done with regard to the drainage of Ketley, which in some instances is very unsanitary and should receive immediate attention.

*Wenlock Urban.—Sewerage and Drainage.*—“ A modern drainage scheme has been carried out for the town of Much Wenlock during the year by the Sanitary Committee, this step, on which the Committee are to be congratulated, marking another decided improvement in the sanitation of the town.”

#### SEWAGE DISPOSAL.

The following Local Government Board Inquiries were held during the year into applications for loans for sewerage and sewage disposal :—

On February 13th, into a petition by the Shifnal Rural District Council for compulsory powers for the purchase of land, and an application for sanction to borrow £4,300 for purposes of sewerage and sewage disposal. It will be remembered that the previous application was not granted owing to the opposition of the Borough of Wolverhampton, who have certain rights over the watershed. This difficulty having been got over, the present inquiry was held. The possibility of dealing with the sewage by a less expensive scheme on the present site was brought forward by the Parish Council, and others, and the Inspector adjourned the inquiry in order that these ideas might be presented in a proper scheme. At the adjourned inquiry, a scheme for dealing with the sewage on the present site was considered, and also an entirely new scheme involving a new site.

On November 1st into an application by the Oakengates Urban District Council for sanction to borrow £14,370 for works of sewerage and sewage disposal. The loan in this case was for (1) sewerage the unsewered part of the district, (2) separation of the storm water from the sewage in Oakengates proper, (3) underdraining the portion of the farm not underdrained, and (4) construction of additional carriers in order to make more land available for the sewage.

The majority of the considerable centres of population have now dealt with their sewage in a more or less satisfactory manner. The towns and villages still undealt with and receiving the attention of the County Council are Bridgnorth, Broseley and Madeley, Ellesmere, Market Drayton, All Stretton, Clun, Highley and Baschurch. The position as regards Bridgnorth, Broseley and Madeley, and Clun, has been somewhat altered by the Eighth Report of the Royal Commission on Sewage Disposal.

*Short Summary of the Eighth Report of the Royal Commission on Sewage Disposal.*—The recommendations of this report, if embodied in law, will in many cases make a very considerable difference to the amount of sewage purification which is required. At the present time every person discharging sewage into a stream is to take "the best practicable and available means to render the sewage harmless." The Commissioners recommend that in place of the best practicable and available means, shall be substituted certain standards of purification. They suggest an ordinary or average standard for the majority of cases. This standard will probably be found to be as stringent as those usually adopted by public authorities under the present law.

They also suggest a specially severe standard where a considerable amount of sewage is discharged into a small stream.

Where the dilution by stream water is very great, they suggest that the standard may *with the approval of the Central Authority* be relaxed or suspended altogether, and that if the volume of the stream is over 500 times that of the sewage, the sewage may be discharged into the stream after screening or passing through detritus tanks.

If the dilution by the stream is 300 to 500 volumes, tank treatment without chemicals would generally suffice, if the tanks were properly worked and regularly cleansed.

If the dilution is 150 to 300 volumes no treatment beyond chemical precipitation would ordinarily be needed.

In previous reports the constitution of a Central Authority and of separate Rivers Boards for different watersheds have been recommended.

In the present report it is suggested that the normal standard of sewage purification shall be prescribed by Statute or Order, and that this standard shall apply, except where local circumstances are shown to the satisfaction of the Central Authority to justify a special standard. It is evidently contemplated that each case where a variation of the normal standard is in question, shall be considered carefully in all its aspects by the Central Authority. Many circumstances besides the amount of dilution would no doubt have to be considered, and in particular the frequency of the occurrence of pollutions. A number of small pollutions occurring within a short distance of one another might seriously deteriorate a river, although taken separately, the dilution might be sufficient to prevent nuisance. It is quite clear that if these recommendations are adopted, an enormous amount of work will devolve upon the Central Authority.

It is extremely important that the Local Government Board should consider this report promptly and announce without undue delay the course of action they intend to adopt.

It is probable that some relief might be given to Local Authorities under certain conditions without any material harm, but it will require most careful legislation, if the purification of rivers is not to receive a severe set back.

There is another aspect of the question that must not be overlooked. The powers under the Rivers Pollution Prevention Act have effected an enormous improvement in the sanitary conditions of districts irrespective of the removal of river pollution, by bringing about the proper seweraging and draining of towns. Many instances of this kind could be quoted in this County, and one or two still remain to be dealt with. Of these the most glaring are the various townships in the Broseley and Madeley Wards of the Borough of Wenlock.

Dr. Gepp says :—"As regards these towns and townships of Ironbridge, Madeley, Coalbrookdale, Coalport, Broseley and Jackfield, *I have stated my definite opinion that further necessary progress in sanitation depends upon proper sewerage being provided.* The Local Government Board and the County Council have been pressing the Sanitary Committees concerned to obtain

engineering assistance 'with a view to ascertaining to what extent the present unsatisfactory condition of the sewerage in these two wards could be remedied at a reasonable cost.' At the end of the year the Committees were understood to be in communication with firms of engineers."

"*The sewers require to be largely replaced or re-modelled, and extended, in order to provide efficient drainage for the requirements of the District, independently of any question of river pollution.*"

In his last three Annual Reports Dr. Gepp has reported that "further and necessary sanitary progress in the Borough depends upon proper sewerage."

Quite apart from the question of river pollution a proper sewerage system should be insisted upon for these districts.

The following extracts deal with river pollution :—

*Cleobury Mortimer Rural.*—"No tank has yet been put down to intercept the solid matter on the Highley outfall sewer. This, I think, is very desirable in view of the growth of the village."

*Drayton Rural.*—"The sewage of Market Drayton is still untreated, and continues to pollute the river at the old outfall. A revised scheme for the sewerage and the treatment of the sewage has been prepared by a sanitary engineer, at an estimated cost of about £23,000. This scheme has been approved by the Council, and a Local Government Board enquiry is to be made at the end of April. The Parish Council has applied for Urban powers, with the view of carrying out another scheme at an estimated cost of about £14,000. If this scheme should prove to be as feasible and effectual as the scheme approved by your Council, it would mean a saving of about £9,000 to the ratepayers of the town."

*Wellington Urban.*—The sewage outfall works are now turning out a very satisfactory effluent. "The storm overflow at Spring Hill has been the source of complaint, and it has been decided to do away with it and construct a further line of pipes to the outfall works to carry away the storm water. Here it will be received into a tank to allow the solid matter to settle, and passed over the storm water bed into the stream."

#### SCAVENGING AND DISPOSAL OF HOUSE REFUSE.

In previous reports the importance of prompt and efficient scavenging and the bearing of this upon the prevention of flies has been dealt with at some length.

The measures that should be adopted in town and country districts to lessen flies and prevent them doing any injury to the health of human beings were briefly stated. These may with advantage be re-stated :—

*In country districts* it should be the endeavour of the Sanitary Authority to see—

- (1) That a type of closet is provided in which the excreta is immediately covered with earth, and that persons are instructed in the proper use of these closets. The abolition of all privy middens is essential.
- (2) That all decomposable matter is buried or covered with a layer of earth each day.
- (3) That accumulations of manure are kept as far as possible from houses and dairies.
- (4) That every house has a proper food store protected from flies.

In towns there should be—

- (1) An efficient water carriage system.
- (2) Systematic and frequent scavenging—at least once a week.
- (3) General use of covered metal receptacles for household refuse.
- (4) Careful instruction given with regard to burning decomposable household refuse.
- (5) Stable manure should be removed at least once a week, and on each occasion the middenstead should be *completely emptied and cleansed*. These receptacles should be properly constructed so as to allow of cleansing.

The danger of " tips " to houses within at least a mile radius was clearly proved by Dr. Hewitt's experiments quoted in last year's report.

Having regard to the very serious injury to health that may arise from the absence of proper scavenging, it certainly appears as if the Sanitary Authority of any considerable town is in grave default if it does not provide a satisfactory system.

As regards Market Drayton there is a definite recommendation by the Medical Officer of Health, that the Council should undertake the scavenging. I have made an investigation into the conditions of this town and am very strongly of opinion that public scavenging is required.

Other small towns and large villages where scavenging might be adopted with advantage are Cleobury Mortimer, Ellesmere, Hadley, and Meole Brace.

#### Extracts from reports :—

*Atcham*.—"I have referred in recent reports to the advantages that would be afforded by a system of public scavenging in Meole. The Council has under consideration a report and suggestions of the Sanitary Inspector made after a complete inspection."

*Church Stretton Urban*.—Advance has been made in substitution of portable ashbins in place of ashpits.

*Drayton*.—"Removal and disposal of house refuse is regulated by By-laws, and the responsibility falls upon the occupier. A public system should be adopted. The chief objection to this is the cost, but the increase in the rates would probably not exceed the amount at present paid by the majority of the occupiers for removal of refuse. The adoption of a public system would tend to decrease the prevalence of infectious disease. It is now well known that refuse heaps are breeding places for flies, and flies carry the germs of infectious disease from house to house."

*Ellesmere Urban*.—"For the most part the houses in the District are provided with open refuse receptacles which are emptied periodically by the tenants, and the contents deposited in a refuse heap just outside the town. Many of the smaller houses, however, have no receptacle at all for refuse. This removal of refuse at the will of the tenant is open to serious objection. The regular emptying of waste material cannot be relied upon. Heaps of old rubbish readily become breeding places for flies and other obnoxious insects, which are now known to act as carriers of disease. The regular removal of refuse under Sanitary Authority control would be a great step towards the perfecting of the Public Health of the District."

*Ludlow Urban*.—"Recent investigation has clearly shown that ashpits of the large open type are nearly always associated with the prevalence of summer diarrhoea in children, and the substitution of the covered galvanised ash receptacle is both economical and sanitary."

*Newport Urban*.—Active steps have been taken to substitute sanitary ashbins for ashpits. Except for a small number of ashpits there is weekly removal.

*Oakengates*.—Sixty ashpits were abolished and galvanised pans and boxes substituted.

*Wellington Urban*.—The substitution of galvanised ashbins for ashpits is gradually being made.

It is evident that an effort is being made in many of the Urban Districts to get rid of the objectionable old ashpits. Such work must materially improve the health of a town.

MILK SUPPLY, AND INSPECTION OF DAIRIES, COWSHEDS, MILKSHOPS, AND DAIRY CATTLE.

The following Table, compiled from the District Medical Officers' Reports, shows the amount of inspection in each district :—

	Number of Cowkeepers and Milk-sellers on Register.	Number of Premises.			Number of Inspections.	DEFECTS FOUND.											
		Cowsheds.				In Cowsheds.					In Water Supply.						
		Dairies.	Milkshops.	Floor or Cubic Space.		Ventilation.	Lighting.	Structure of Floor.	Drainage.	Cleanliness.	In surroundings of Cowsheds.	In sanitary condition of drains.	In sanitary condition of Milkshop.	Number of Notices, verbal or written.	Number of these Notices compiled with.	Number of defects found and not yet remedied.	
<b>URBAN DISTRICTS.</b>																	
Bishop's Castle ..	8	8	8	—	10	—	—	—	—	—	—	—	—	2	2	2	
Bridgnorth ..	24	24	18	—	120	—	—	—	—	—	—	—	—	10	2	9	
Church Stretton ..	7	2	—	—	9	—	—	—	—	—	—	—	—	—	2	2	
Dawley ..	25	25	25	—	46	—	—	2	—	—	—	—	—	—	—	—	
Ellesmere ..	9	8	4	5	18	—	—	—	—	—	—	—	—	—	—	—	
Ludlow ..	4	2	4	1	10	—	—	—	—	—	—	—	—	—	—	—	
Newport ..	24	9	2	2	53	—	—	2	—	—	—	—	—	—	—	—	
Oakengates ..	35	22	9	—	84	4	5	3	4	6	4	several	6	—	7	6	
Oswestry ..	25	11	—	4	50	—	2	3	—	2	5	3	1	—	13	1	
Shrewsbury ..	60	—	—	—	195	—	—	—	—	—	—	—	—	14	13	1	
Wellington ..	20	9	1	4	37	—	2	—	—	—	3	5	1	—	9	9	
Wem ..	13	10	10	—	12	—	4	—	—	—	3	3	3	—	3	3	
Wenlock ..	33	29	33	3	20	—	1	4	7	1	4	3	1	—	7	5	
Whitchurch ..	24	23	24	1	60	—	1	1	2	2	4	—	—	4	4	4	
<b>RURAL DISTRICTS.</b>																	
Atcham ..	230	230	10	—	404	—	—	13	13	11	17	40	7	16	58	50	8
Bridgnorth ..	20	—	20	—	50	—	—	—	—	—	—	—	—	—	6	6	—
Burford ..	1	2	—	1	2	—	—	1	3	2	2	2	—	—	33	27	6
Chirbury ..	27	27	—	—	69	—	3	2	2	2	18	5	1	—	7	6	48
Church Stretton ..	16	18	16	—	64	15	2	15	3	15	9	3	15	—	1	3	—
Cleobury Mortimer ..	7	—	—	—	28	—	—	—	—	1	1	1	—	—	—	—	—
Clun ..	6	6	6	—	15	—	—	—	1	—	2	—	—	—	3	3	—
Drayton ..	114	—	114	—	41	—	—	—	—	—	—	—	—	—	12	11	—
Ellesmere ..	45	45	—	—	90	—	—	—	—	—	—	—	—	—	30	30	—
Ludlow ..	27	27	—	—	50	—	—	—	—	—	20	—	—	—	43	43	—
Newport ..	37	36	16	—	62	—	—	2	1	72	1	1	—	—	76	76	—
Oswestry ..	68	68	—	—	170	—	—	—	—	—	9	3	3	—	15	14	1
Shifnal ..	49	46	36	3	237	—	1	—	2	11	3	—	—	—	17	15	2
Teme ..	1	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—
Wellington ..	33	33	—	—	53	—	—	—	—	2	5	14	—	5	2	1	—
Wem ..	128	128	—	—	256	—	—	—	—	—	4	—	5	19	19	—	
Whitchurch ..	20	20	—	—	55	—	—	—	—	—	—	—	5	5	5	—	—

The following are extracts from the reports :—

*Atcham.*—“The greatly increased supervision of the milk trade in the District during the past three or four years is a most satisfactory feature of the Council’s work. Since the end of 1906 the number on the register has been increased from 84 to 230, and in connection with this much good work has been done in obtaining better structural conditions in the cowsheds ; lighting, ventilation, flooring, and drainage being brought up to a better standard.”

*Church Stretton Rural.*—“I made a special inspection of most of the cowsheds in 1911, as described in the last report. The defects found were principally as to paving, lighting and drainage, want of cleanliness in the sheds, foldyards and approaches. The Council decided to wait for the passage of the Milk Bill before adopting Regulations. Existing defects were pointed out to the cowkeepers, but little improvement has so far been effected in the conditions, as may be seen from the Inspectors’ tabulated statement, at the end of this report.”

*Drayton.*—“Dairies, cowsheds and milkshops were systematically inspected in 1910—1911, and a special report sent to the Local Government Board and to the County Council. A note of the defective conditions found was sent to each occupier, and a good many improvements have resulted. Much more remains to be done in the way of structural alterations for the increase of lighting and ventilation. There are 114 cowkeepers and milksellers on the register, and the Sanitary Inspector is making a detailed inspection throughout the district.”

*Oakengates.*—“The cowsheds have during the year been reported on and considerable improvement made in most of them, but there are still seven which are defective, and no alterations have been made after frequent notices. In these cases pressure should be brought to bear by the use of the powers the Council possess to bring them into line.”

“Complaints of dirt, &c., in the milk have been received, and the condition of some of the sheds and surroundings must be improved before they will cease.”

*Oswestry Urban.*—“We have taken every precaution to ensure a good and pure supply of milk to the Borough. Our Veterinary Inspector visits and reports every six months on the health of every cow whose milk is brought into the town.”

*Shifnal.*—“In structure the majority of the cowsheds are satisfactory, but the recurring complaints in regard to the cleanliness continue to make careful supervision necessary.

“A certain amount of the dirt which gets into the milk is no doubt due to want of cleanliness of the milker and the cattle, and this would be remedied by the provision of means of washing in the sheds and the systematic use of them.

“The Council are responsible not only for the milk consumed in their district, but also for the large quantities which are imported to the neighbouring industrial towns, where infantile diarrhoea is often a serious factor in the death returns.”

*Shrewsbury.*—“During the year 22 samples of milk were examined bacteriologically, one being found to contain tubercle bacilli.”

“All the samples of milk examined for tubercle bacilli were also examined for dirt by the method of sedimentation noted in the report for 1911. A marked improvement in the condition of the milk supplied in the Borough is apparent. Two contained an excessive quantity of dirt resulting in the farmer being personally warned. These warnings have had generally an excellent effect in making those handling milk take greater care as to its cleanliness.”

*Wellington Urban.*—“There are nine cowsheds registered and they are maintained in a cleanly condition. The provision of a bowl and towel for the milkers in every cowshed to wash their hands, and also for the purpose of cleaning the teats, before milking, is one that should be urged on the dairymen; it is essential if the milk is to be free from dirt. The question, also, of veterinary inspection of cattle is one of the phases of the prevention of Tuberculosis that should seriously engage the attention of the Council.”

The following districts in the County have not yet adopted the Dairies and Cowsheds Regulations :—

Burford, Church Stretton Rural, Cleobury Mortimer, Ellesmere Urban and Rural, Teme and Wem Urban.

The object of this inspection is to provide a milk supply free from infectious disease germs, particularly tubercle, and free from dirt.

The delay in passing the Milk and Dairies Bill is undoubtedly acting injuriously, not only by keeping back powers that are urgently needed, but also by providing an excuse to some authorities for making no further progress.

In order to prevent the sale of tuberculous milk and in order to get the cowsheds into a reasonably sanitary condition, some such powers as those contained in the Milk and Dairies Bill are absolutely essential. For the prevention of the sale of tuberculous milk systematic inspection of dairy cattle is the first step.

In the meantime a scheme has been got out and will shortly be in operation for the examination by the County Health Department of samples of milk from all parts of the County, for dirt. In cases where the dirt exceeds a certain limit, the milkseller will be communicated with and informed that if the condition of the milk continues to be dirty, samples will be taken under the Food and Drugs Act for prosecution.

It is confidently anticipated that this procedure will have a marked effect upon the cleanliness of the methods of collection and delivery of milk.

*Tuberculosis Order, 1913*, came into operation on May 1st, 1913. This order is a commencement of the measures necessary for the elimination of tuberculosis amongst cattle, and for the prevention of the infection of human beings with bovine tuberculosis. For these purposes, additional powers, similar to those contained in the Milk and Dairies Bill, are necessary, especially the systematic inspection of cattle.

Under schedule 2 of the Order—

- (1) Every person having in his possession or under his charge
  - (i) any cow which is, or appears to be, suffering from tuberculosis of the udder, indurated udder or other chronic disease of the udder; or
  - (ii) any bovine animal which is, or appears to be, suffering from tuberculosis with emaciation shall without avoidable delay give information of the fact to a constable, or etc.
- (2) The person in charge has to take certain precautions with regard to the milk (Article 9) and the isolation of suspected animals (Article 10).

Under Article 3 notification is also imposed in the above mentioned cases on the veterinary surgeon attending the animal.

All notifications have to be transmitted by the Local Authority to the Sanitary Authority.

Under Article 4, the Local Authority must cause a veterinary examination of animals on premises to be made, when they have reasonable grounds (notification or otherwise) for supposing that there is on the premises a cow (1) with chronic disease of udder, (2) giving tuberculous milk, or (3) a bovine animal with tuberculosis with emaciation. With consent in writing the inspector may apply the tuberculin test.

The inspector may take samples of milk, urine, faeces and abnormal discharges.

The inspector must report as soon as possible, and the Local Authority must send a copy of the report to the Sanitary Authority.

If there is no tuberculosis the owner has to be informed that the precautions have ceased to apply.

Under Sec. 5, the Local Authority shall, when satisfied on the report of the inspector, cause the diseased (see Article 2) animal to be slaughtered ; there are certain safeguards.

Secs. 6 and 8 deal with compensation.

If the post-mortem examination shows that the animal was not suffering from tuberculosis, the full value, plus twenty shillings, has to be paid.

In case of tuberculosis, not advanced, three quarters of value, less half cost of valuation, has to be paid.

In cases of advanced tuberculosis, one quarter of value or thirty shillings (whichever sum is the greater), less half the cost of valuation.

Advanced tuberculosis is defined on the lines laid down by the Local Government Board as justifying total condemnation of the carcase.

Article 9. The milk of a cow with, or suspected of having, chronic disease of the udder, or emaciated from tuberculosis, shall not be mixed with other milk, and shall be boiled, until the cow has been examined by a veterinary inspector, and the owner informed that the section has ceased to apply.

Under Sec. 10, such an animal shall be isolated so far as practicable and kept in the owner's possession until the animal has been examined and the restrictions withdrawn. The owner may at any time slaughter the animal.

The remaining sections deal with suspected animals at markets, etc., cleansing and disinfection, reports, etc.

The County Council is the Local Authority for the whole County, with the exception of the Borough of Shrewsbury.

The success of any effort to exterminate tuberculosis in cattle must depend very greatly in the long run upon the general measures taken to improve their housing condition. With good conditions in respect of air space and cleanliness, and with cowsheds open freely to the outside air, measures such as are contained in this Order if amplified, would no doubt have a rapid and most marked effect. With the continuance of existing conditions comparatively little can be hoped for.

#### MEAT INSPECTION.

In Shrewsbury there is a complete system of meat inspection (referred to on page 124).

In Newport Urban District much attention is given to the inspection of meat, and the inspector is allowed to consult with a veterinary surgeon appointed for this purpose.

In Oakengates the meat supply is carefully watched but there is no systematic inspection.

In Shifnal the slaughter-houses are carefully supervised and the meat frequently inspected.

TABLE IX.  
FACTORY AND WORKSHOP ACT, 1901.  
—  
SUMMARY FOR 1912.



In the majority of the districts, however, the inspection is of a perfunctory kind, and there is no record of any carcase being seized except in Shrewsbury, Newport Urban District, Dawley and Shifnal.

Apart from tuberculosis, the most dangerous class of meat is that derived from animals that have died (or slaughtered shortly before death) from acute septic diseases.

The Anthrax Order, 1910, as now administered, is probably a considerable safeguard against the sale of this class of meat, and probably it can be made more effective in this direction.

During the year 1911, 361 suspected animals were reported, and 24 of these were diagnosed as anthrax; in 1912 the numbers were 355 suspected cases, of which 24 were diagnosed as anthrax.

When a suspected case is notified to the police, a veterinary inspector is at once called in, and he certifies either that the case is not anthrax, or that it is a suspected case of anthrax. In the latter event the carcase is cremated at once. In the former, the carcase is detained until the veterinary inspector's diagnosis is confirmed by the Chief Veterinary Officer of the County, after microscopical examination of the blood.

Even when anthrax is not suspected by the Veterinary Inspector, the carcase is detained on the premises for at least 24 hours (the time necessary for confirming the diagnosis), and unless the animal has been bled it would by that time be quite unsaleable. There seems, therefore, to be little possibility of any of these animals being cut up and sold for human food, but as an additional precaution I would again recommend that the Veterinary Inspector be instructed to communicate with the Sanitary Inspector of the Local Sanitary Authority where there is any such possibility.

#### INSPECTION.

The work of sanitary inspection in the various districts is summarised on Table VII. The number of inspections given in Column 1 include not only the systematic house inspections but inspections of houses for all other purposes. It is evident that in some districts the amount of inspection is very insufficient. In particular, the amount of inspection in the Oakengates Urban District and the Ludlow Rural District is totally inadequate; nor can the amount of inspection in Atcham, Cleobury Mortimer, Wellington Rural, Ellesmere Urban, or Wellington Urban, be deemed sufficient.

#### FACTORIES AND WORKSHOPS.

Details of the inspection of factories and workshops are given on Table IX., and summaries of the remarks of the medical officers will be found in Part II. of the report.

The amount of inspection in most districts is about one visit a year to each workshop, and in many districts it falls short of this. Such an amount of inspection cannot be considered at all adequate for the purpose of seeing that the workshops are kept clean, well-ventilated, and in other respects in a sanitary condition.

In the rural district of Chirbury no visits of inspection were made.

Almost no lists of out-workers have been received outside the Borough of Shrewsbury. The amount of work carried on in workshops throughout the County is small, and this no doubt accounts to a great extent for the comparatively little attention that appears to be given in most of the districts to this matter. One most important and difficult question, viz., the ventilation of workshops, does not appear to be dealt with to any considerable extent, for only 12 cases of defective ventilation were reported.

## FOOD AND DRUGS.

Return showing the number, description, and result of analyses of samples taken during the year, and the subsequent action taken.

Nature of Sample.	No. taken.	Result.		Remarks.
		Genuine.	Adulterated.	
Brandy ..	5	5	—	
Gin ..	9	8	1	Fined 2/6 and costs, £1 6s. 4d.
Rum ..	3	2	1	Dismissed.
Whisky ..	22	21	1	Dismissed.
Arrowroot ..	8	8	—	
Butter ..	31	22	9	Boric Acid below amount allowed. No action taken.
Coffee ..	8	8	—	
Cheese ..	5	5	—	
Flour ..	2	2	—	
Ginger ..	7	7	—	
Lard ..	25	25	—	
Milk ..	27	23	4	1 Withdrawn; 1 fined 10/-, 1 fined £2 and costs £2 17s. 6d., and 1 fined £4 1s. 6d. and costs 18/6.
Mustard ..	6	6	—	
Oatmeal ..	11	11	—	
Pepper ..	24	24	—	
Sugar ..	3	3	—	
Sausage ..	1	1	—	
Ground Rice ..	1	1	—	
Cream ..	2	2	—	
Tea ..	5	5	—	
Tapioca ..	1	1	—	
Marmalade ..	1	1	—	
Tincture of Rhubarb ..	11	10	1	Withdrawn.
,, Quinine ..	9	9	—	
,, Gentian ..	5	5	—	
	232	215	17	

Considerable attention is being paid to the question of preservatives, but in no instance has any preservative been found in sufficient quantity to justify proceedings.

It is satisfactory to observe that no preservative whatever has been found in any sample of milk.

The Milk and Cream Regulations came into force on October 1st, 1912. Two samples of cream were taken under the regulations during the year, and both samples conformed to them.

It appears that the amount of preserved cream sold in this County outside Shrewsbury is comparatively small.

The number of samples of milk taken were not adequate as a safeguard, and instructions have been taken to increase the number in future.

Preservatives were not found in any of the samples of milk taken, and in only one sample of butter did the amount of preservative approach the amount suggested as a maximum by the Departmental Committee.

The small number of adulterations detected may be due to the action of taking the samples. In the year 1909 it was decided to employ women as deputies for purchasing articles where thought desirable. No samples were taken by women during the year.

#### MIDWIVES ACT.

The following statement shows the number of midwives, the visits paid and the notifications received in each year since 1905 :—

Year.	Number of Midwives practising in the County in June of each year.	Number of Visits paid.	Notifications of having sent for medical help.	Notifications of still-births.		Notifications of death of mother or child with no medical man in attendance.
				By Midwives	By Parish Clerks.	
1905	231	642	83	38	—	5
1906	345	829	325	105	—	13
1907	328	837	385	95	227	16
1908	310	868	504	91	220	13
1909	309	885	533	111	195	9
1910	321	711	516	90	166	8
1911	293	840	515	81	154	23
1912	284	770	555	86	170	16

Miss Frith, the Inspector of Midwives, reports that the improvement in the methods of practice of Midwives described in previous reports has been maintained and has made further progress.

The Inspector has taken the opportunity, whenever possible, of visiting the midwives at their work, as in this way only is it really possible to see that many of the rules of the Central Midwives Board are properly carried out, and that the midwife attends to the patient satisfactorily.

The Inspector at her visits not only satisfies herself with regard to the condition of the bag, appliances, dresses and aprons, the keeping of the register and records, but she gives instructions to the midwives whenever necessary, on the essential matters concerning their practice.

Since it was made obligatory (Rule 13) for midwives to take and record the pulse and temperature, very special attention has been paid to this matter. Of the midwives on the roll, 132 are keeping records; 54 are reported as unable to keep records and incapable of being taught; and the remainder have promised in future to keep records of pulse and temperature in accordance with the rule. These records will in many instances be erroneous to begin with, but they will be of an educational value, and will enable the Inspector to direct her teaching with better effect.

On the whole, however, the Inspector speaks very highly of the praiseworthy efforts of the midwives to carry out the provisions of the Act, under conditions that are often very adverse. There is, however, not sufficient attempt made to understand and remember the rules, and this necessitates fresh explanations at almost every visit. It is mostly in consequence of this, that there are so many small breaches of the rules to which attention has to be called. The Inspector reports that the trained midwives are quite as negligent in this respect as the untrained ones. It is evident that a knowledge of the rules and their importance is not sufficiently insisted upon during training.

The proper feeding of infants is made a subject of personal instruction, and leaflets drawn up for this purpose are given to the midwives for them to leave with and explain to the mothers. It is satisfactory to find that a very large proportion of the children in the County are breast-fed, the actual percentage so fed, of 3,913 births, that we have information of, being 85 per cent.\* The midwives are instructed that under no circumstances must they recommend hand-feeding, and that if for any physical reason breast feeding is thought to be impossible, the case is one for medical advice. The Inspector reports that the midwives, generally speaking, take a very intelligent interest in the feeding of infants, and that they really exert themselves to overcome the mothers' objections to breast-feeding.

In those cases where it has been possible for the Inspector to visit mothers and give advice with regard to infant feeding, it has been most encouraging to observe that the advice has been well received and the results have been good. There can be no doubt that a well organised system of health visiting, under which the children would be kept under observation for the first five years of life, would be followed by a most marked improvement in the health of the children.

*Notifications of sending for Medical Help.*—The number of notifications during the year was the largest of any year since the Act came into force.

It is obvious that one of the most important duties imposed upon Local Supervising Authorities is to see that medical help is sent for in accordance with the rules, and for this purpose it is necessary that all the formalities should be strictly adhered to. Preliminary inquiries are made in each case, and, if necessary, a personal investigation.

The reluctance to send for medical help amongst persons who can ill afford the cost must have been greatly lessened by the Insurance Act, under which an amount of either 30s. or £3, according to circumstances, is receivable by the household.

*Notifications of Still-births.*—In order to obtain an independent return of still-births as a check, the parish clerks and the cemetery authorities have been asked to supply me with particulars of still-born children who are buried in their burial grounds. All the cemetery authorities, with two exceptions, and practically all the parish clerks or the clergy acting for them, have very kindly undertaken to supply me with this information, and my thanks are due to them. The notifications thus received have been a considerable help in carrying out the Act.

\* This percentage refers to the number of children breast-fed during the time the midwife is in attendance, but information shows that a large proportion remain on the breast for the proper period.

Two hundred and sixty notifications of still-births referring to 207 cases have been received from midwives and Parish Clerks and Clerks to Burial Boards.

68	of the cases were attended by medical men, no midwife being in attendance.
86	" " " by certified midwives without medical assistance.
5	" " " by uncertified midwives.
48	" " " by midwives, medical help being obtained.

Sixty-eight or 33 per cent. of the cases occurred in the practice of medical men, and for 48 or 23 per cent., medical help was obtained. In 56 per cent. of the cases, therefore, a medical man was in attendance.

The returns sent in by the certified midwives, although incomplete, show that they attended 3,913 births in 1912 out of a total of 5,393, leaving less than 1,480 or 27 per cent. to be attended by medical men and uncertified midwives.

Approximately the incidence of still-births was

3.7 per cent. of the total births.
3.4 per cent. of the births attended by midwives including those in which the midwife sent for medical assistance.
5.0 per cent. of the births attended by medical men.

These figures show that still-births occurred more particularly in the practice of medical men, and this is explained by the fact that still-births are frequently due to some complication or abnormality which may necessitate the engagement of a medical man beforehand. On the other hand medical attendance should diminish the number of still-births by prompt and skilled assistance in certain cases.

Analysis of the notifications of still-births sent in by the midwives shows that :—

41 were at full time ; 41 premature ; in 4 no statement.

The condition of the child pointed to :—

death during labour or shortly before in 39 ; death some time before labour in 32 ; in 15 there was no indication given.

The presentations were :—head 56, breech 7, footlings 2. In 12 cases the presentations were not mentioned, and in 9 cases the child was born before the midwife's arrival.

The sex of the children was as follows :—males 43, females 41 ; sex not mentioned in 2. The persistently greater number of male still-births points to the initial lower vitality of males.

An inquiry was made into all still-births, although frequently at some considerable time after the birth. There was no definite evidence that death was due to prolongation of labour, in the absence of medical help, and in no case was there evidence that a live birth was returned as a still-birth.

These figures, although incomplete, are of some value in showing the number of children that might possibly have been saved if skilful attendance had been available at the time of confinement. It is particularly in breech presentations (including footlings) that skilful and rapid completion of delivery is likely to save life. It seems a pity that the rules of the Central Midwives Board allow a midwife to attend all uncomplicated breech presentations, especially in *primipara*, because when complications arise, it is frequently too late to send for medical help.

*Notifications of deaths of mother or child with no medical man in attendance.*—The notifications sent by the police continue to be of great use in bringing to light cases that the midwives should have reported.

*Puerperal Fever.*—Sixteen cases were reported or discovered, compared with 20 last year. Five of the cases occurred in the practice of medical men, and in these there was no midwife in attendance or the midwife attended as a monthly nurse.

In no instance could the spread of infection be attributed to the conduct of the midwife. A second case occurred in the practice of one midwife only, and the cases were separated by an interval of nine months. The sanitary districts in which more than one case occurred were:—Cleobury Mortimer (3), Wellington Urban (3), Ellesmere Rural (3), and Atcham (2).

*Present Supply of Midwives.*—In June, 1913, there were 275 midwives registered as practising in the County, compared with 284 at a corresponding period in 1912.

As previously pointed out one can only estimate the real supply by considering the age, training, and general capabilities and distribution of the midwives. A fresh estimate, necessarily only approximate, has been made of the number of midwives at the various ages. It is estimated that out of a total of 275, there are 179 over 50 years of age. Of this number, about 76 are over 60, and 41 over 70 years of age. Of the 275 registered midwives, 102 are properly trained, and the remaining 173 are on the roll because they were in practice twelve months before the passing of the Act. The number of trained midwives on the roll on June 1st, 1913, was three less than in the previous year. The numbers since 1907 are:—June, 1st 1907, 70; 1908, 73; 1909, 81; 1910, 93; 1911, 89; 1912, 105; 1913, 102.

In the same years the untrained midwives have decreased:—1907, 256; 1908, 237; 1909, 228; 1910, 228; 1911, 204; 1912, 179; 1913, 173.

From the fact that there are 41 midwives over 70 years of age, it appears likely that there will be a further reduction of about 40 during the next five years on account of old age.

#### MIDWIVES GROUPED ACCORDING TO NUMBER OF CONFINEMENTS THEY ATTENDED IN 1912.

##### (a) TRAINED MIDWIVES.

Number who have not sent in returns of confinements	..	..	..	..	..	19
,,    ,,    ,, attended no confinements	..	..	..	..	..	8
,,    ,,    ,, less than 10 confinements	..	..	..	..	..	44
,,    ,,    ,, between 10 and 20 confinements	..	..	..	..	..	31
,,    ,,    ,, 20 and 30	..	..	..	..	..	7
,,    ,,    ,, 30 and 40	..	..	..	..	..	2
,,    ,,    ,, 40 and 50	..	..	..	..	..	2
,,    ,,    ,, 50 and 60	..	..	..	..	..	3
,,    ,,    ,, 60 and 70	..	..	..	..	..	0
,,    ,,    ,, 70 and 100	..	..	..	..	..	1
,,    ,,    ,, over 100	..	..	..	..	..	1

##### (b) UNTRAINED MIDWIVES.

Number of Midwives who have not sent in returns of confinements	..	..	..	..	..	4
,,    ,,    ,, attended no confinements	..	..	..	..	..	13
,,    ,,    ,, less than 10 confinements	..	..	..	..	..	80
,,    ,,    ,, between 10 and 20 confinements	..	..	..	..	..	46
,,    ,,    ,, 20 and 30	..	..	..	..	..	19
,,    ,,    ,, 30 and 50	..	..	..	..	..	7
,,    ,,    ,, 50 and 70	..	..	..	..	..	5
,,    ,,    ,, 70 and 100	..	..	..	..	..	3
,,    ,,    ,, over 100	..	..	..	..	..	2

This analysis shows clearly that only a comparatively small number of midwives are making a living by this work. Unless a midwife is attending at least 50 cases a year she must have some other source of income, and applying this test it will be seen that only 15 or a little over 5 per cent. can rely upon midwifery alone.

The following classification of parishes was drawn up four years ago to give as accurate an idea as possible of the supply of midwives throughout the County. It has been altered each year in accordance with our more correct knowledge and with the changes in the distribution of midwives. It may now be considered as nearly accurate as such a classification can be.

UNION.	Parishes fairly well supplied with trained Midwives.	Parishes well supplied with untrained Midwives (many of these are becoming less active and capable of doing the work each year).	Parishes poorly supplied either on account of distance from a Midwife or other cause.	Parishes with practically no supply.
ATCHAM	I. Eaton Constantine. Wroxeter. Uppington. Pontesbury. Berrington. Atcham Uffington Withington. Upton Magna. Montford. Shrawardine. Langley. Yockleton. Acton Burnell. Alberbury. Astley. Bicton. Con Glover. Cound. Cressage. Fitz Ford Frodesley. Pitchford. Preston Gubbals. Stapleton. Sutton. Shrewsbury. Ruckley. Worfield. Linley Burwarton. Neenton. Cleobury North. Ditton Priors.	II. Great Hanwood. Melverley. Meole Brace. Minsterley.	III. Battlefield. Church Preen. Kenley. Leighton. Church Pulverbatch.	IV. Albrighton. Habberley. Hughley. Wollaston. Harley. Shineton. Westbury.
BRIDGNORTH.		Claverley. Billingsley.	Willey.	Bridgnorth. Oldbury. Eardington. Middleton Scriven. Chelemarsh. Acton Round. Alveley. Astley Abbotts. Aston Eyre. Chetton. Deuxhill. Glazeley. Monkhopton. Morville. Quatt Malvern. Romsley. Sidbury. Stanton Long. Tasley. Upton Cressett. Easthope. Shipton. Sibdon. Smethcott. Woolstaston.
CHURCH STRETTON.	Acton Scott. Little Stretton. Longnor. Church Stretton. Cardington.	Wistanstow. All Stretton. Eaton-under-Heywood. Leebotwood. Rushbury.	Hope Bowdler.	
CLEOBURY MORTIMER.	Cleobury Mortimer. Coreley. Milson. Nean Savage. Nean Solaris. Wheathill.	Aston Botterell. Farlow. Loughton. Silvington. Highley. Kinlet.	Woodhouse. Hopton Wafers. Stottesdon.	

UNION.	Parishes fairly well supplied with trained Midwives.	Parishes well supplied with untrained Midwives (many of these are becoming less active and capable of doing the work each year).	Parishes poorly supplied either on account of distance from a Midwife or other cause.	Parishes with practically no supply.
CLUN.	I. Clunbury. Bishop's Castle Urban. Bishop's Castle Rural. Lydham. More. Norbury. Shelve. Lydbury North. Myndtown. Ratlinghope. Hodnet. Drayton-in-Hales. Moreton Say. Adderley. Tittenley. Stoke-upon-Tern. Cheswardine.	II. Mainstone. Edgton. Hopesay.	III. Clungunford.	IV. Hopton Castle. Clun. Wentnor.
DRAYTON.		Hinstock. Norton-in-Hales. Woore.		Ercall Parva or Child's Ercall.
ELLESMORE.	Baschurch. Ellesmere Urban. Hadnall. Hordley. Myddle. Cockshutt. Welshampton.	Ellesmere Rural. Great Ness. Little Ness.		
FORDEN.			Brompton & Rhiston.	Worthen. Chirbury.
KNIGHTON.		Llanfair Waterdine. Bucknell.		Bettws. Bedstone. Stowe.
LUDLOW.	Ashford Bowdler. Ashford Carbonel. Bromfield. Cainham. Culmington. Diddlebury. East Hamlet. Hope Bagot. Ludford. Munslow. Stanton Lacy. Stokesay. Ludlow.	Abdon. Halford & Dinchop. Heath. Onibury.	Cold Weston. Clee St. Margaret. Tugford. Holdgate. Stoke St. Milborough.	Hopton Cangeford. Bitterley.
MADELEY.	Much Wenlock. Madeley.	Dawley Magna. Buildwas. Stirchley. Benthall. Broseley. Madeley (part of) Posenhall.	Barrow. Much Wenlock (part of)	Little Wenlock.

UNION.	Parishes fairly well supplied with trained Midwives.	Parishes well supplied with untrained Midwives (many of these are becoming less active and capable of doing the work each year).	Parishes poorly supplied either on account of distance from a Midwife or other cause	Parishes with practically no supply.
	I.	II.	III.	IV.
NEWPORT.	Cherrington. Chetwynd. Chetwynd Aston. Church Aston. Edgnond. Lilleshall. Longford. Newport. Tibberton.			
"		St. George's. Woodcote.		
"				
"				
"				
"				
"				
"				
OWESTRY INCORPORATION.	Ruyton-of-the-Eleven-Towns. Saint Martin's. Selattyn. Weston Rhyn. Owestry Urban. West Felton. Knockin. Whittington.	Kinnerley. Llanyblodwell. Llanymynech. Owestry Rural. Sychtyn.		
"				
"				
"				
"				
"				
"				
SEISDON.	Shifnal.	Rudge.		
SHIFNAL.	Stockton.	Kemberton.	Boscobel.	Albrighton.
"	Sutton Maddock.	Prior's Lee.	Ryton.	Boningale.
"		Tong.	Beckbury.	Donington.
"			Badger.	Sheriffhales.
TENBURY.	Boraston and Whatmore. Burford. Greet. Nash, Tilsop, and Weston. Whitton.			
"				
"				
"				
"				
WELLINGTON.	Bolas Magna. Eyton-upon-the-Wildmoors. Waters Upton. Wellington Urban. Wrockwardine Kinnersley. High Ercall.	Hadley. Rodington. Wellington Rural. Wombridge. Wrockwardine Wood	Longden-upon-Tern. Preston-upon-the-Wildmoors.	
"				
"				
"				
"				
"				
"				
WEM.	Broughton. Clive. Grinshill. Loppington. Moreton Corbett. Shawbury. Stanton-upon-Hine-Heath. Wem Rural. Wem Urban. Weston. Prees.	Lee Brockhurst. Whixall.		
"				
"				
"				
"				
"				
"				
WHITCHURCH.	Ightfield. Whitchurch Urban. Whitchurch Rural.			
"				
"				

Midwives reported to the Local Supervising Authority during the year, 1912 :—

ALLEGED OFFENCE.	ACTION TAKEN.
1. (a) Failure to notify having sent for medical help (rule 21 (1) (a)) ; (b) Failure to wash patients in accordance with rule 7 (c) ; (c) Did not take the pulse and temperature of patient (rule 13).	Midwife attended and was cautioned.
2. (a) Failure to wash her hands and use a disinfectant before examining a patient (rule 3) ; (b) Failure to wash patient in accordance with rule 7 (a) and (b).	Severely censured.
3. Failure to notify having sent for medical help (rule 21 (1) (a)).	Cautioned.
4. (a) Did not send for medical help sufficiently early in a case of ophthalmia (rule 20 (5)) ; (b) Did not send in a notification of having sent for medical help (rule 21 (1) (a)) ; (c) Employing her daughter as a substitute in contravention of Section 1 (4) of the midwives Act.	The midwife attended and was severely censured.
5. (a) Did not advise the Local Supervising Authority that the advice of a registered medical practitioner had been sought, in accordance with rule 21 (1) (a) ; (b) After attending an infectious case did not disinfect herself, instruments, appliances, and clothes, to the satisfaction of the Local Supervising Authority before going to another case (rule 5).	The midwife attended and was cautioned.
6. Negligence in her attendance on, and misconduct at, a case of confinement.	A <i>prima facie</i> case of negligence and misconduct was found, and it was decided to report her to the Central Midwives Board. She has since been struck off the roll of midwives.
7. Practising without notifying the Local Supervising Authority in accordance with Section 10 of the Act.	Cautioned.

*Future Supply of Midwives.*—Hitherto the demands made by districts for midwives have been met. This has been made possible by the action of the County Council and of the Nursing Federation.

Under the present arrangement the County Council repay to the Shropshire Nursing Federation three-fourths of the actual cost of the training and equipment of any maternity nurses, who have been recommended by the Federation, and approved by the County Medical Officer of Health. Nine nurses were sent for training by the Nursing Association during the year 1909, and three were trained apart from the Federation, making 12 in all. In 1910, 10; in 1911, 5; and in 1912, 13 midwives were trained.

I have recommended that the training of 12 midwives each year should be sufficient to meet requirements, and this has been aimed at.

The more complete enforcement of Sec. 1 (2) of the Act since April 1st, 1910, has not, with the exception of a few localities, caused any great inconvenience in this County. This is due to the fact that an exceptionally large number of midwives were originally enrolled, and that under Rule B (2) a number of midwives were added in those districts where they were most needed.

In certain localities there is undoubtedly a serious scarcity of midwives which must result either in practice by unqualified women, or in medical men attending every case. This scarcity is most marked in the Borough of Bridgnorth and practically all the Rural District of Bridgnorth, in Worthen and Chirbury, Clun, Bedstone, Stowe, Bitterley, Hopton Cangeford, and Knowbury.

Other districts in which the supply of midwives is very inadequate are Trefonen, Treflach, Cefnyblodwell, and Porthywaen, and also the country between Minsterley and Lydham.

It is quite evident that a fresh and serious difficulty will be created as the older midwives die off or become less capable of work, for they are living under conditions that will not support a trained midwife.

Provision can under present conditions best be made by the formation of Local Nursing Associations, to which Boards of Guardians can contribute, in so far as the Association nurses attend pauper patients or patients who would otherwise be in receipt of poor-law medical relief. The formation of such associations, particularly in thinly populated districts, would be helped forward considerably if the nurses engaged could also act as school nurses.

Many parishes are much too small to support a nurse, and in these cases the difficulty can only be overcome by the proper grouping of parishes.

It is important that the localities in which there is a scarcity of midwives should consider this matter without delay. Efforts are being made to discover unqualified practice, and when such practice comes under the notice of the Local Supervising Authority legal proceedings are taken. It is too late then for the locality to plead that no other midwife is available.

In 1912 proceedings were taken against five unqualified women who were practising midwifery. Four of them were fined and one cautioned.

*National Insurance Act.*—The maternity benefit under this Act should not only be a great help to the household but should materially improve the conditions of practice of the midwife.

The benefits under the Insurance Act in a case of confinement consists of (1) payment of 30s. where the woman confined is an insured person *or* the wife of an insured person, and (2) sickness benefit for a period of four weeks (7s. 6d. a week) where the woman confined is an insured person *and* a married woman.

In nearly all confinements therefore, the household should receive 30s., and in a certain proportion, at present not large, a sum of £3 in all.

The maternity benefit and the sickness benefits are administered by the approved societies for their members and by the Insurance Committee for Post Office contributors. The benefit may be administered in cash or otherwise. The importance of this is that the midwife may be paid directly and her fee assured. The fee should be commensurate with the importance of the services rendered.

There is no reference in the Act to the payment of medical fees with the exception that under Sec. 18 (1) it is stated "in the case of a midwife being selected, a duly qualified medical practitioner is subsequently summoned in pursuance of the rules made under the Midwives Act, 1902, the prescribed fee shall, subject to regulations made by the Insurance Commissioners, be recoverable as part of the maternity benefit."

The Commissioners have fixed these fees. It hardly appears as if the difficulties connected with the payment of medical men sent for in emergencies under the rules of the Central Midwives Board, have been satisfactorily solved by the Insurance Act.

It is interesting to note that in the last three years medical help has been sent for in 13.3 per cent. of the cases attended by qualified midwives. Of these 1237 or 82 per cent. were for the mother before, at, or immediately after confinement, 70 or 5 per cent. for the mother some time subsequently, and 196 or 13 per cent. for the child. On these figures it should be possible to estimate the total cost if adequate fees were paid to medical men sent for by midwives and how much this would amount to if averaged over the number of confinements attended by midwives.

*Lectures to Midwives.*—One course of lectures has been given to midwives during the year at Oakengates, the average attendance being 10.

## RAINFALL.

The following figures are taken from a table compiled by the Rev. W. M. D. LaTouche :—

STATIONS.	RAIN GAUGE. Height above - sea level.	DEPTH OF RAIN.	
		1911	1912
Clee Hill .. . . . .	feet. 1510	inches.	inches. 43.54
Burwarton Hall .. . . . .	894	24.03	38.50
Woolstaston .. . . . .	800	28.23	39.08
Bishop's Castle .. . . . .	720	24.56	33.67
Wallop Hall, Westbury .. . . . .	700	32.07	44.95
Preen Manor .. . . . .	700	25.01	36.06
Oswestry, Mount Reservoir .. . . . .	698	27.89	36.83
Lydbury North, Walcot .. . . . .	662	26.51	35.57
More Rectory .. . . . .	600	26.22	34.17
Bishop's Castle Vicarage .. . . . .	596	27.44	36.98
Church Stretton .. . . . .	582	29.24	40.68
Hopesay Rectory, Aston-on-Clun .. . . . .	565	26.69	35.91
Bitterley Rectory .. . . . .	509		36.56
Clunbury Vicarage .. . . . .	497	27.97	36.95
Broseley, Willey Park .. . . . .	492	23.76	35.30
Wistanstow Rectory .. . . . .	480	27.02	37.51
Bridgnorth, Coton Hall .. . . . .	460	22.45	38.40
Onibury, Stokesay Court .. . . . .	432	26.28	36.09
Bridgnorth, Aldenham Park .. . . . .	430	21.33	33.93
Shifnal, Haughton Hall .. . . . .	355	20.64	34.02
Ellesmere, The Grange .. . . . .	340	22.91	30.98
Bromfield .. . . . .	320	27.64	36.89
Ludlow, Ashford House .. . . . .	315	29.43	40.10
Bromfield, Oakley Park .. . . . .	310	25.37	34.79
Bridgnorth, Cantreyn .. . . . .	290	22.28	35.32
Shifnal, Neachley .. . . . .	280	20.28	34.03
Newport, Aston Hall .. . . . .	280	21.15	33.49
Shifnal, The Schools .. . . . .	279	22.31	33.74
Market Drayton, Buntingdale .. . . . .	276	22.32	36.08
Whitchurch, Fenn's Bank .. . . . .	271	21.10	29.89
Shifnal, Hatton Grange .. . . . .	262	19.45	33.78
Edgmond .. . . . .	261	20.26	32.20
Fitz Manor .. . . . .	253	19.14	30.83
Shrewsbury, Highfield .. . . . .	250	18.82	30.11
Chetwynd Park .. . . . .	250	20.99	34.99
Fitz Rectory .. . . . .	238	19.09	30.50
Newport, Harper-Adams College .. . . . .	220	18.44	29.83
Roden, Royal Met. Soc. .. . . . .	208		29.04
Shrewsbury, Ordnance Office .. . . . .	212	17.37	27.87
Shrewsbury, Abbey House .. . . . .	171	19.86	31.05
Average .. . . . .			35.00

## PART II.

### **Abstracts, Etc., of Annual Reports of the Medical Officers of Health for the Various Districts.**

For the sixth time the reports for the districts forming the Atcham Combined District have been issued as one report. The districts comprised in the reports are Atcham, Church Stretton, Clun, Newport and Whitchurch Rural Districts; Dawley, Newport, and Whitchurch Urban Districts, and the Boroughs of Bishop's Castle and Wenlock.

"The Combined District was formed in 1897, by agreement among the Councils and under official sanction of the Local Government Board, for the purpose of appointing a Medical Officer of Health. A Joint Committee was formed, and met to arrange the salary and appointment of a Medical Officer of Health. The present Medical Officer of Health was appointed for one year on December 18th, 1897, and has been re-appointed in December, 1898, December, 1903, and December, 1908, for a period of five years on each occasion. The Joint Committee has not met since the date of the first appointment, the re-appointments being made by separate re-election to each of the Councils in the Combination. The salary of the Medical Officer of Health is £375 per annum, to include all travelling, stationery, and other expenses, one half of the salary being repaid to the Councils by the County Council. The Medical Officer of Health is debarred from private medical practice, but may hold other public health appointments by consent of the Councils. He holds the appointment of Medical Officer of Health to the Church Stretton Urban District Council, outside the Combined District."

Dr. GEPP says:—

"In the last Annual Report I drew attention to the increase of duties and responsibility of the Medical Officer of Health owing to public health legislation, and to various Orders issued by the Local Government Board, in recent years. The Housing, Town Planning, etc., Act, 1909, with the consequent issue of the Housing (Inspection of Districts) Regulations, 1910, and the issue of the Public Health (Tuberculosis) Orders and regulations, may be specially referred to in this connection, and I would repeat that a division and re-arrangement of the Districts in the Combination is necessary for efficient administration. The term of five years of the Medical Officer's present appointment, ends with this year, and the time is therefore opportune for a re-consideration of the area and of the terms and conditions of the appointment."

"*Tuberculosis.*—An important Order was issued late in the year by the Local Government Board extending the scope of former Orders dealing with notification, and making compulsory the notification of *all* cases and *all* forms of tuberculosis. Full knowledge as to existing cases is necessary in order that the far-reaching scheme of treatment and control, adopted by the County Council, may be worked to the fullest advantage. I have, in the report on each District, made recommendations which will, I hope, be adopted. Any steps which it may be found can be taken by District Councils to supplement and complete the County Scheme should be adopted.

*" Hospital Isolation.*—I have in former reports stated my views in favour of schemes for provision of hospitals for infectious diseases being undertaken for the County as a whole. As a result of reports of the County Medical Officer, and of an application from one Local Authority for the formation of a Hospital District, the County Council has taken action recently under the Isolation Hospitals Acts with the probable result of the provision of hospitals for the use of six out of the ten Districts of this Combination. An Order has been made constituting a Hospital District for an area which includes Dawley Urban, and Newport Urban and Rural Districts and an enquiry has been held into an application for the formation of another Hospital District which would include Bishop's Castle Urban, and Church Stretton and Clun Rural, Districts."

*" Acute Poliomyelitis, and Cerebro-spinal fever* were made notifiable last year. The disease known as *Ophthalmia Neonatorum*, or destructive inflammation of the eye in new born infants has been made notifiable in the following Districts by resolution of the District Council:—Atcham, Church Stretton, Clun, Newport, and Whitchurch Rural Districts; Bishop's Castle and Whitchurch Urban Districts. I recommend its adoption by the Urban Districts of Dawley, Newport and Wenlock also. Following on adoption of notification of this disease, arrangements should be made for the immediate services of a medical man and a nurse to carry out the treatment, and I suggest that in places where District nurses are available their services should be secured by arrangement."

## ATCHAM (Rural)

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	.. 123,200
<i>Population</i>		<i>at 1911 Census</i>	.. 21,770
<i>Number of inhabited houses</i>	..	..	.. 4,591
<i>Number of persons per house</i>	..	..	.. 4.7

### General Character of the District.

" The District is a very large one, some 22 miles in length by some 14 in extreme breadth, its area being 125,207 acres. The river Severn runs through it from north-west to south-east, dividing it into two parts, of which the Northern and smaller part is continuous with the Midland plain, on the new Red Sandstone. The general elevation of this part is from 200 to 300 feet O.D. The Southern and larger part is more elevated, rising gradually from the river, southward and westward, from 200 to some 600 feet O.D., with considerably greater elevations on the hillsides which form the western and southern borders. The geological formation of this part is broken and diverse. The hills are the outliers of the Cambrian and Silurian ranges of Wales and Shropshire. There are also detached but considerable exposures of the coal measures and of the Permian Red Sandstone. There is in both parts a variable, but generally considerable, thickness of drift overlying the strata. The drainage is, on both sides, to the Severn, by numerous small tributary streams. The Borough and County town of Shrewsbury lies nearly in the centre of the District.

" The District is entirely rural in character, for the most part fertile and highly cultivated, supporting a comparatively large agricultural population, distributed in numerous villages, in smaller hamlets, and largely also in scattered isolated dwelling-houses. The density of population is equal to about 111 persons to the square mile. A few collieries are worked around Hanwood, but many parts of the small coal-fields are abandoned. Extensive quarries of Quartzite stone, for road metal, are worked at Pontesbury."

## Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	13.8	.24	1.10	.33	.76	1.10	1.34	77	21.2

The population, after corrections for public institutions, is estimated at the middle of 1912 to be 20,950.

Between 1891 and 1901 there was a decrease of 245 in the population, and in the following ten years an increase of 875. The chief increases were in the parishes of Meole Brace and Pontesbury.

*Infectious Disease.*—Fifteen cases of scarlet fever, 31 of diphtheria, 11 of erysipelas, and 2 of puerperal fever were notified. *Scarlet Fever.*—The cases were scattered and in only two instances did infection spread to a second person in the house. *Diphtheria.*—The principal localised outbreaks were in Hanwood and Cound. In both instances, school investigations were made and swabs taken from suspected children. With regard to Hanwood outbreak Dr. Gepp says:—“ This series of cases showed that diphtheria was existent over this area for the greater part of the year, and no doubt was spread by slight and unrecognised cases, or by ‘ carriers,’ the connection between known cases being for the most part not traceable.”

“ I am of opinion that better control of diphtheria in country districts would be possible if every known case could be removed to hospital and kept there till free of infection. In this way the manufacture of ‘ carriers’ and of slight cases of infection should be effectively lessened.”

*Diphtheria Antitoxin* was generally used, the serum being supplied free by the Council in 10 cases.

Six schools were closed on account of *whooping cough* and two on account of *chicken-pox*.

*Phthisis.*—There were 37 cases notified and 23 deaths. Disinfectants and leaflets of advice were supplied in some cases and inspections made by the Sanitary Inspectors. Special returns are made of deaths by the Registrars. “ A comprehensive scheme for the treatment and prevention of tuberculosis in the County has been prepared by the County Medical Officer and recently adopted by the County Council. This will provide, when fully developed, a complete establishment of sanatorium and dispensaries for treatment of non-insured as well as insured persons, with hospital provision for isolation of advanced and dangerously infectious cases. The duties and powers of District Councils in prevention of infection are comprehensive and important, and their part in connection with the County scheme will lie chiefly in prevention of spread of infection in the patient’s home, by dealing with sanitary defects favouring ill health,

by disinfection of infected premises and articles, and by supervision of the home life of infected persons. The provision of shelters for home treatment of tuberculous patients falls within the District Council's powers, and it may be found necessary for the Council to make provision for these for the domiciliary treatment of non-insured patients to complete the County schemes. If this should be so I suggest that efficiency and economy would result from a joint arrangement being made by all the County Districts, each District subscribing towards the purchase of a sufficient stock of shelters for common use. The County scheme provides for a staff of nurse-inspectors to be attached to the several dispensaries, and the District Councils are invited to appoint these as their officers also, and to pay a small part of their salary and expenses, to assist their Medical Officer of Health in the supervision of home conditions. I have recommended the Council to adopt this suggestion, as it will be absolutely essential to the exercise of adequate and continuous supervision, and of education of infected households in means of preventing spread of infection. The cost to District Councils is estimated at about twenty-six shillings per 1000 of population, and in my opinion offers a great benefit at a very small cost."

*Hospital Isolation.*—There is no isolation hospital for the District. There is an arrangement for prompt dispatch of a tent hospital for small-pox, and the Council have a Berthon Hut and a small tent. "I have referred to the question of Hospital accommodation in former reports, advising the provision of permanent provision for infectious diseases in the District."

*Disinfection* of rooms is carried out by the Council's Officers by spraying with formalin or cyllin. The Council possesses an emergency steam disinfector, but it is not used in routine disinfection.

*Water Supply.*—There are public supplies for Meole Brace, Pontesbury village and Bayston Hill. There are private systems at the villages of Acton Burnell, Albrighton, Buildwas, Condover, Cound, Cressage, Dorrington, Eaton Constantine, Frodesley, Grafton, Harley, Harnage, Pitchford, Leaton, Ruckley, Rushton, Shrawardine, Uppington and Upton Magna. Elsewhere the supply is from pumps and wells.

"Much good work has been done in recent years by the efforts of the Sanitary Surveyor and the Sanitary Inspector in calling for and assisting by advice and supervision in, the proper construction and protection of wells in the case of houses newly built, and in the re-construction on sound lines of old wells where found to be defective. Fifteen old wells were reconstructed and improved during the year in this way."

*Public Supplies—Meole Brace.*—The supply has been maintained during the year. *Pontesbury.*—The village has been well supplied. The supply to *Pontesbury Hill* has been improved by the provision of a storage reservoir of 500 gallons to take the overflow from the Whitwell Spring, and the Dingle Well has been cleansed and re-constructed. *Bayston Hill.*—The Council have under consideration the extension of a main along Sharpstones Lane. This is most desirable. Six public wells and pumps have been improved.

*New Schemes of Public Supply.*—Supplies to *Ryton* and *Cross Houses* are under consideration. *Cross Houses.*—A site for boring in Berrington village has been selected. Negotiations with the estate owners have been entered into. *Ryton.*—The Council have decided to bore at the lower end of the village.

*Private Systems of Supply—Condover.*—A small scheme to supply filtered water from the Bomere Pool to Bomere and Bayston farms has been carried out. The water is pumped by a wind engine. *Cound.*—The supply has been extended. *Acton Burnell.*—The supply has been improved by laying a new main of socketted and cemented earthenware pipes under the ploughed land. There still remains some doubt as to the origin of the water and the possibilities of pollution at its source.

"Twenty-five certificates were granted during the year for the water supply to new houses. In the case of new well supplies it is the practice to require the water to be passed by analyses, and the structure of the well and the sanitary surroundings to be such as to provide adequate protection to the water."

*Sewerage and Drainage.*—Several of the larger villages are sewered, of which the chief are Meole, Pontesbury, Minsterley, Dorrington, Asterley and Bayston Hill. Of the above systems only that of Meole has outfall works. The Pontesbury scheme is progressing towards completion.

*Excrement Disposal.*—With the exception of Meole Brace, where water-closets are in general use, the system of excrement disposal is by earth-closets and privies, the latter being more common. The conversion of privies to earth-closets is steadily progressing, 250 having been converted to pail closets during the last three years and 81 during 1912. In the village of Meole Brace a recent survey shows that there are 300 water-closets, 28 earth-closets and 6 privies. Of the privies several are dilapidated and insanitary and should be converted to water-closets.

There is no system of public scavenging of house refuse in the district. "I have referred in recent reports to the advantages that would be afforded by a system of public scavenging in Meole. The Council has under consideration a report and suggestions of the Sanitary Inspector made after a complete inspection."

*Housing.*—"As in most Rural Districts, there is a large number of very old houses becoming worn out and needing inspection and attention in order to keep them from becoming unfit for habitation. Closure of such houses often presents difficulty in the absence of alternative accommodation, and the Council is giving the question of building of cottages their careful consideration."

Seventeen houses were represented as unfit for habitation, including 8 in Withington parish. These 8 houses are built back-to-back and are deficient in air space and circulation. So far, no definite action has been taken by the Council, but they are under consideration. In 6 other cases in which no closing orders were made, 2 were closed by the owners, and in 4 cases action was deferred on the owners giving satisfactory undertakings. In the remaining 3 houses, closing orders were made. "The records of inspection are considered regularly by the Sanitary Committee, who report to the Council. The records are kept on a 'case paper' system, carefully filed and indexed, each house reported upon being kept under review until all necessary repairs have been done, or the house has been demolished."

*Permissive Powers.*—Sections 29, 30, and 31, of the Public Health Acts Amendment Act, 1890, applying to slaughter-houses, have been adopted. The Infectious Diseases (Prevention) Act, 1890, is not adopted in the District.

*By-laws*, applying to the whole rural District, have been made as to private scavenging and slaughter-houses. By-laws, applying to 11 contributory places (parishes) have been made as to nuisances and new streets and buildings.

A new code of by-laws is being considered on the lines of the Model Intermediate Code, for the whole District.

*Slaughter-houses*—22 on the register. Periodical inspection is made but not specially at times of slaughtering. No tuberculous carcases were found.

*Bakehouses*—22 on register; inspected periodically.

*Dairies, Cowsheds and Milkshops*.—The Model Regulations are in force. There are 230 cowkeepers and milksellers on the register, 12 having been added during the year. Since the end of 1906 the number on the register has increased from 84 to 230. Much good work is being done in obtaining better structural conditions in the cowsheds.

*Action taken with respect to Tuberculous Milk*.—Information was received in September from the Medical Officer of Health of the Borough of Shrewsbury, that milk from a farm in the Rural District had been found to be tuberculous and that on veterinary inspection, 3 cows were certified to be suffering from tuberculous disease of the udder. The sale of this milk was prohibited and the cows removed from the herd. The cows were afterwards sold and lost sight of.

## BISHOP'S CASTLE (Urban).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P., D.P.H.
<i>Area in Acres</i>	..	..	1,867
<i>Population</i>	at 1911 Census	..	1,409
<i>Number of inhabited houses</i>	.. "	..	360
<i>Number of persons per house</i>	"	..	4.1

### Physical Features and General Character of the District.

"The Borough forms an area some three miles in length by a mean breadth of about one mile, lying within the south-west border of Shropshire, touching the Montgomeryshire border at one end, but otherwise surrounded by the Clun Rural District. It has the small town of Bishop's Castle about the centre. The elevation varies from about 500 feet O.D. in the valley at the south-east end to 1000 feet or more in the hill country forming the north-west end. The town lies on a hillside rising out of the valley, the main street rising steeply from about 600 feet to 700 feet O.D., and the houses are placed on either side of the street and about the crest of the hill above it. The subsoil is the Wenlock and Ludlow beds of upper Silurian age. The natural drainage is from north and west to south and east by small streams, the District lying upon the drainage system of the river Teme. The town is a market town and borough of great age, and the area outside is very sparsely populated. There are no industries in the District."

### Statistics.

Death-rates per 1000 population from

Period.	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuber-culous Diseases.	Bron-chitis.	Pneu-monia (all forms)	Cancer.	Infant Death-rate per 1000 Births.	Birth-rate.
1912	19.1	.0	4.96	.0	.0	.71	1.42	67	21.3

The death-rate was high, but this is accounted for to a great extent by the large number of old persons, and when the factor for correction is applied, the death-rate is only slightly above that of Rural England.

*Infectious Disease.*—Only two cases of scarlet fever occurred during the year. They were apparently associated with one another.

There is an arrangement for the free supply of antitoxin.

No schools were closed for infectious diseases.

*Phthisis.*—There were 7 deaths and 6 cases notified. The death-rate from phthisis during the last 12 years has been heavy, but as no inquiries were made until last year, it is doubtful how many of these were introduced cases. Of the deaths last year there is some probability that more than half were of persons infected outside the town. The County scheme for dealing with tuberculosis is approved.

*Isolation Accommodation.*—There is no isolation hospital for the District. With reference to the formation of a hospital district the report says:—"In my opinion a hospital, if established, will be of distinct advantage to the Borough, and its usefulness will be appreciated. It would have been very useful in the outbreak of diphtheria in 1910, and as regards the last three cases of scarlet fever, I think it probable that if the first case had been removed and isolated the other two would not have occurred."

*Disinfection.*—Disinfectants are supplied and the Sanitary Inspector has a spraying apparatus. Two houses were disinfected by him after infectious disease and 5 after deaths from phthisis. There is an emergency steam disinfecter owned in conjunction with the Clun Rural District.

*Water Supply.*—The water supply is from uncultivated moorland free from suspicion of contamination. The supply was constant during 1912, and it was not necessary to use the pumping plant installed. The population supplied is about 1,200.

*Sewerage and Drainage.*—A scheme of sewerage and sewage disposal was carried out in 1910, and constituted a great sanitary advance. Four thousand yards of new sewer were laid, and the sewage is treated by septic tanks and double filtration. Over 100 house drains have been re-laid and connected to the new sewers during the past three years. There is a good deal of work to be done.

*Excrement Disposal.*—There are 213 water-closets (47 hand-flushed), 6 pail closets and 50 privies in the town area. Ten privies were converted to water-closets last year, and during the last three years there have been 65 conversions.

*Removal of House Refuse.*—Weekly scavenging has now been instituted. Householders are required to place portable receptacles on the pavement.

*Housing.*—There is very little building of new houses, and there are a great number of old cottages which need inspection and attention.

*Housing Regulations.*—No inspections were made in 1911. A start was made in 1912, but owing to the ill health of the Surveyor and his retirement, not much could be done. There is no record of this work. The Medical Officer of Health has conferred with the Inspector and asked him to proceed with the routine inspection of the scheduled houses and bring his reports regularly before the Sanitary Committee. Special attention is to be given to insanitary old privies, to drainage, refuse accumulations, paving of yards, and troughing and spouting of houses.

*Permissive Powers.*—The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts Amendment Act, 1890, Part III., are adopted. The Council has adopted Part IV. of the Public Health Acts Amendment Act, 1907. The sections in force are secs. 52 to 68 inclusive, with the exception of sec. 59. The adoption of Part III. of this Act is recommended.

By-laws are in force with regard to Nuisances, Cleansing of Footways, removal of house refuse, etc., Slaughter-houses, Common Lodging Houses, and New Streets and Buildings.

*Slaughter-houses.*—There are 4 on the register. They are periodically inspected and occasionally at times of slaughtering. No tuberculous carcases were found.

*Common Lodging Houses*—Two on register ; inspected regularly.

*Dairies, Cowsheds, and Milkshops.*—Regulations are in force. There are 8 cowkeepers, etc., on the register. There has been no action with regard to tuberculous milk and no veterinary inspection of dairy cows.

## BRIDGNORTH (Urban).

<i>Medical Officer of Health</i>	..	L. E. DICKSON, M.D., M.R.C.S., L.R.C.P.
<i>Area in Acres</i>	..	3,018
<i>Population</i>	at 1911 Census	5,768
<i>Number of inhabited houses</i>	„	1,346
<i>Number of persons per house</i>	„	4.3

### General Character of the District.

"The Borough of Bridgnorth is situated on the river Severn, and is divided by that river. The Borough consists of four parishes:—St. Leonard's, St. Mary Magdalene, Quatford, and Quatt Jarvis, of a total area of 2,987 acres. The population at the Census of 1911 was 5,768. Geographically, Bridgnorth is divided into a High and a Low Town. The High Town, so called from being situated on a sandstone rock, 250 feet above sea level, is situated on the west bank of the river Severn, and the Low Town is mainly on the east bank, about 130 feet above sea level. Bridgnorth is a centre for a large agricultural District, and a weekly market for farm produce takes place in the High Street every Saturday. There is also a fortnightly stock market at the local smithfield. Its principal factories are a carpet factory, employing about 400 hands; a spinning mill, a silk printing mill, and a tanyard."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	14.3	.35	.69	.35	1.56	.87	1.56	87	21.8

*Infectious Disease.*—Seven cases of scarlet fever, 2 of diphtheria, 6 of enteric fever, and 16 of phthisis were notified. Of the 6 cases of enteric fever, one was of a doubtful nature. No common source of infection could be discovered.

*Disinfection.*—After infectious disease all rooms are disinfected by fumigation with formalin and bedding and clothing by steam.

*Hospital Accommodation* is primarily for small-pox, but the hospital is used for isolation of scarlet fever and occasionally diphtheria.

*Water Supply.*—There is a dual system. Drinking water is obtained from a spring and is supplied to standpipes. For other purposes river water is laid on to the houses. It is filtered through a battery of 4 Candy Filters and afterwards through sand. The amount of water used per head per day is about 40 gallons. “A chemical analysis of this was made in April and was highly satisfactory.”

*House Accommodation.*—The accommodation in respect to cottage dwellings is barely sufficient for the town. A considerable number of cottages are old and difficult to keep in satisfactory repair.

*Housing and Town Planning Act.*—A list of houses needing inspection has been prepared, and many of these houses have been inspected. A report on two cottage dwellings where action is most urgently needed has been presented to the Committee.

*Sewage and Drainage.*—The sewage works draining the north part of the town continue to act satisfactorily. A scheme was in course of preparation for the remainder of the town, but in consequence of the report of the Royal Commission its consideration has been deferred.

*Disposal of House Refuse.*—Removal of house refuse is carried out monthly, weekly or more often if required. The refuse is tipped by the North Gate Sewage Works.

The Schools have been inspected, and are in a sanitary condition.

*Inspection of Meat and Foods* is carried out by the Sanitary Inspector. No carcases were condemned for tuberculosis.

*Food and Drugs.*—Proceedings were taken in two cases—cheese and milk. Fines were imposed.

*Milk Supply.*—Regulations are in force. There are 22 cowsheds and 22 dairies on register ; inspected regularly.

*Factories and Workshops*—inspected regularly and found satisfactory.

*Bakehouses*—14 on the register ; kept clean and properly lime-washed.

*Permissive Powers.*—The Public Health Acts Amendment Acts, 1890 and 1907, and the Infectious Diseases (Prevention) Act, 1890, are not in force.

By-laws are in force with regard to Nuisances, Cleansing of Footways, Slaughter-houses, and Common Lodging Houses. There are no by-laws with regard to New Streets and Buildings.

## BRIDGNORTH (Rural).

<i>Medical Officer of Health</i>	..	J. C. PADWICK, M.R.C.S., L.R.C.P.
<i>Area in Acres</i>	..	.. .. .. .. .. 70,521
<i>Population</i>	at 1911 Census	.. .. .. 9,125
<i>Number of inhabited houses</i>	..	.. .. .. 2,061
<i>Number of persons per house</i>	..	.. .. .. 4.4

### *General Character of the District.*

" Bridgnorth Rural District is an agricultural area surrounding the Bridgnorth Urban District, and is nearly equally divided by the river Severn. It contains 27 parishes, with a total area of 70,521 acres, and an estimated population of 9,140. The principal parishes are those of Worfield, Claverley, and Alveley, with a population respectively of 1,448, 1,358, and 940. The principal occupation of the inhabitants is that of agriculture. A few are employed in coal-mining, and reside in the parishes of Alveley, Chelmarsh, and Billingsley, whilst on the Clee Hill some are employed in quarrying stone."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	11.9	.11	.66	.11	.88	.77	.98	77	21.3

*Infectious Disease.*—Seven cases of scarlet fever, 3 of diphtheria, 1 of enteric fever, 2 of erysipelas, and 10 of phthisis were notified. The origin of the case of *enteric fever* was not traced.

There were 6 deaths from phthisis.

*Disinfection* is carried out by the Sanitary Inspector, rooms being fumigated with formalin, the walls white-washed or re-papered, and the floors scrubbed with carbolic.

*Water Supply* is from wells with the exception of Alveley and Worfield, and a small supply to a few houses at Cleobury North, Ditton Priors and Monkhton. The public well at the "Finger," Alveley, has been improved by deepening and the fixing of a pump.

*Pollution of Streams.*—The sewage installation at Worfield is working satisfactorily.

*Sewerage and Drainage.*—A new drain at Claverley has done away with the nuisance so often complained of.

Pail closets and cesspits are employed throughout the District.

*Housing.*—Only one house has been closed under the Housing and Town Planning Act. This has since been put into a habitable condition.

"Four cases of overcrowding have been dealt with during the year, one at Alveley, and three at Billingsley. The three at Billingsley occurred in the temporary huts put there by the Colliery Company. Many houses are in course of construction just outside the District in the Cleobury Mortimer area, and it is understood that these temporary dwellings will be closed as such early in the year."

*Milk Supply.*—Twenty cowkeepers and milksellers are on the register. The premises are regularly inspected. Two have been improved with regard to paving and drainage. All are now satisfactory.

There are two *factories*, 14 *workshops*, 13 *bakehouses*, and 7 *slaughter-houses* on the register. All have been inspected and found to be in good condition. Two slaughter-houses have been considerably improved during the year.

*Unsound Food.*—None has been detected.

## BURFORD (Rural).

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	7,798
<i>Population</i>		<i>at 1911 Census</i>	1,308
<i>Number of inhabited houses</i>	"		286
<i>Number of persons per house</i>	"		4.5

### General Character of the District.

"It lies on the southern border of the County on the slopes of the Clee Hill, and for the most part at an elevation of 200 to 800 feet above sea level. It covers an area of 7,798 acres, and is the smallest Rural District both as regards area and population in the County. It is entirely rural and agricultural, and is composed of five parishes. There is one person to about six acres, and an average of 4.8 persons per house.

"The only public institution in the District to affect the returns is the Cottage Hospital, which is on the southern border and is chiefly used and supported by the neighbouring town of Tenbury. It is here that the Tuberculosis Dispensary for Tenbury has been commenced, and I think it would be well if arrangements could be made for its use by persons resident in the District in which it is situated, who are in need of Dispensary treatment. It would be much more convenient for them than making the journey to Ludlow. The Workhouse for the District is in Tenbury."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	14.1	.75	.75	.0	.0	.0	.0	147	25.3

The high infantile mortality rate (147) has followed an average of 59 for the last 5 years.

*Infectious Disease.*—There was no case of scarlet fever or diphtheria, but 4 cases of phthisis were notified.

*Whooping Cough* necessitated the closure of two schools.

*House Accommodation.*—Six houses were inspected under the Housing and Town Planning Act. No closing order was necessary. Only one case of overcrowding required to be dealt with.

*Water Supply.*—The supply to three cottages was found to be objectionable, and was rectified.

*Dairies and Cowsheds.*—There is one milkseller on the register ; premises visited periodically and found satisfactory.

*Factories and Workshops.*—There is one bakehouse—kept clean and tidy ; no slaughterhouse.

There are no bye-laws and no adoptive Acts in force.

## CHIRBURY (Rural).

<i>Medical Officer of Health</i>	..	J. R. WOODS, B.A., M.R.C.S., L.R.C.P.
<i>Area in Acres</i>	..	27,045
<i>Population</i>	at 1911 Census	3,304
<i>Number of inhabited houses</i>	"	811
<i>Number of persons per house</i>	"	4.1

### General Character of the District.

" The District is a purely agricultural one except for a little lead and barytes mining. This is, however, rapidly falling in prosperity."

### Statistics.

Death-rates per 1000 population from

Period.								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	13.6	.61	1.51	.61	.61	.30	.91	61	20.0

The Notification of Births Act has not been adopted.

" The supply of midwives in some parts of the District is very short.

" Two, in Worthen part of the District have died recently, and no one has taken their places.

" The outlook for the future in this direction is not encouraging.

" Lack of proper attention during confinements is bound to have a prejudicial effect on the mother, also the Infantile Mortality will probably rise in the near future."

*Infectious Disease.*—Five cases of scarlet fever, 4 of diphtheria, 1 of erysipelas, and 3 of pulmonary tuberculosis were notified.

*Ophthalmia Neonatorum* has been added to the list of notifiable diseases.

*Tuberculosis* is still very rife in the District.

*Disinfection* is carried out by the Sanitary Inspector.

*Hospital Accommodation.*—There is an isolation hospital of 6 beds at Forden. It can be used for any one disease.

*Water Supply.*—*Chirbury* has a good supply pumped by means of a windmill. *Marton, Worthen and Brockton.*—Negotiations with the Local Government Board are proceeding with regard to supplying these villages from excellent sources. The rest of the District is supplied mostly from private wells.

*Housing Accommodation.*—This is ample in quantity. Most of the houses are old in type. Much has been done by the Council during the last few years to remedy defects.

*Sewerage and Drainage*—on the whole satisfactory.

*Removal of House Refuse* is in the hands of occupiers.

*Excrement Disposal* is in the hands of occupiers. Privies are gradually being re-placed by pan closets.

*Schools.*—Sanitation is generally good. Hope School has been improved during the year, and the ventilation and sanitary accommodation is now very good.

*Milk Supply.*—A register of milk-sellers is kept and their premises inspected. No veterinary inspection of cows is in force. The dairies are excellent.

*Bakehouses* are satisfactory. There are none underground.

*Workshops*—are satisfactory on the whole.

## CHURCH STRETTON (Urban).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P., D.P.H.
<i>Area in Acres</i>	..	..	978
<i>Population</i>	<i>at 1911 Census</i>		1,455
<i>Number of inhabited houses</i>	..	..	288
<i>Number of persons per house</i>	..	..	5.0

### Physical Features and General Character of the District.

"The District comprises the small ancient town of Church Stretton, lying in an open valley running nearly north and south, 600 feet above sea level, together with the lower slopes of the bold hills which form the sides of this valley, and which rise to some 1,600 feet O.D. The area is 978 acres. The subsoil of the valley is glacial drift, generally of dry and well drained gravel, the hillsides to the west being of hard Longmyndian rock strata, of Pre-Cambrian age, those to the east being also of hard rock, of Ordovician age. The town lies on a watershed, the natural drainage of the valley being on the north towards the Severn, and on the south towards the Teme, the fall being gentle in either direction. The situation is one of great natural beauty and healthfulness, and in consequence the number of residents and visitors has for some years been increasing. The Urban District was constituted in 1899."

"The area of development and of new building has been rapidly extended, and the character of the place has been changed into that of a modern residential district, and a health and holiday resort of high class, for which its open elevated situation and beauty of surroundings well fit it."

"The development of building and laying out of new streets has been well regulated under a very complete and carefully considered series of By-laws. A public system of removal of house refuse has been adopted, and the Council is prepared, through its Surveyor, to test the drainage of any house and to issue to the householder a certificate of sanitary efficiency where the drains pass the test. This is designed to encourage householders to keep their drains and sanitary arrangements up to a high standard, and as an assurance to visitors to houses in the District, where the certificate is obtained and exhibited."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	14.0	.0	.0	.67	.67	.0	2.0	87	15.3

There was no death from any of the common infectious diseases or from phthisis.

*Infectious Disease.*—Four cases of diphtheria, 19 of scarlet fever, and 6 of pulmonary tuberculosis were notified. The cases of *diphtheria* were scattered and apparently had no connection. *Scarlet Fever* was prevalent in the Urban District and the surrounding parts of the Rural District. Fourteen of the cases were in children of school age. A close watch was kept and two cases were discovered amongst school children. "I am of opinion that the detection of 'carriers' of scarlet fever infection is often impossible with existing means of investigation and diagnosis." The school was closed for a month and no fresh cases came to light until the end of the year.

*Phthisis.*—In speaking of the County Scheme, Dr. Gepp says:—“The duties and powers of District Councils in prevention of infection are comprehensive and important, and their part in connection with the County scheme will lie chiefly in prevention of spread of infection in the patient's home, by dealing with sanitary defects favouring ill health, by disinfection of infected premises and articles, and by supervision of the home life of infected persons. The provision of shelters for home treatment of tuberculous patients falls within the District Council's powers, and it may be found necessary for the Council to make provision for these for the domiciliary treatment of non-insured patients to complete the County schemes. If this should be so I suggest that efficiency and economy would result from a joint arrangement being made by all the County Districts, each District subscribing towards the purchase of a sufficient stock of shelters for common use. The County scheme provides for a staff of nurse-inspectors to be attached to the several dispensaries, and the District Councils are invited to appoint these as their officers also, and to pay a small part of their salary and expenses, to assist their Medical Officer of Health in the supervision of home conditions. I have recommended the Council to adopt this suggestion as it will be absolutely essential to the exercise of adequate and continuous supervision, and of education of infected households in means of preventing spread of infection. The cost to District Councils is estimated at about twenty-six shillings per 1000 of population, and in my opinion offers a great benefit at a very small cost.”

*Hospital Accommodation.*—“The Council adopted my suggestion to make an application to the County Council under the Isolation Hospitals Acts for the formation of a Hospital District in which their District would be included. The County Health Committee have considered that a *prima facie* case is made out, and have appointed a date for an enquiry to be held under the Act.”

“The necessity for isolation provision for advanced cases of phthisis is a strong additional argument in favour of a Hospital District scheme.”

*Water Supply* is from upland gathering grounds. There are two reservoirs, one at a height of 1,000 feet O.D., holding 12 million gallons, and one at 800 feet O.D., holding 140,000 gallons. “I have frequently pointed out the possible, though slight, risk of pollution of the feeding streams by visitors in the gathering grounds, and also that the small reservoir, by its size, does not constitute an adequate safeguard against such risk. The large reservoir is practically safeguarded by its ample storage capacity, and I have advised the supply of the District from this reservoir entirely, or of the efficient filtration of the water from the smaller reservoir.”

The Council have obtained an Act of Parliament for the purchase of the undertaking and the Arbitrator's award with regard to purchase price was £17,850. The following recommendations are made:—(1) The consideration of taking the whole supply from the large reservoir, or as an alternative, increasing the storage of the small reservoir or providing filtration for this water; (2) Regular inspection of the banks of the stream; (3) Periodical chemical and bacteriological analyses.

*Sewerage and Drainage.*—The sewerage scheme was completed in 1906. It has provided efficient and satisfactory drainage of the District. The sewers are provided with manholes for flushing, and automatic flushing tanks, and are ventilated by eleven tall shaft ventilators. Manhole covers are generally closed in the streets.

*Excrement Disposal.*—The water-carriage system is in general use. Of the 314 houses, 275 have water-closets, 10 have earth closets, and 29 have privies. There are still a few privies in the town proper which should be converted.

*House Refuse.*—The Council undertakes a weekly collection and has a tip outside the town. A good advance has been made during the year in the provision of portable ashbins in place of old ashpits. One hundred and eighty-eight notices were issued for this purpose, and 148 have been complied with.

*House Accommodation.*—“The Council has under consideration a scheme for the purchase of land and erection of a number of houses for the working classes. In my opinion such provision is very desirable.” There is a dearth of cottages, and in the absence of alternative accommodation it is difficult to deal with the very old houses.

*Housing Inspection.*—The majority of the houses are inspected each year. Fifteen houses were scheduled and inspected and 10 were put into repair; 5 remain under consideration. Although they are unfit for habitation, in the absence of other accommodation, there is reluctance to close them, and the owners are unwilling to undertake any work of improvement.

*Permissive Powers.*—The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts Amendment Act, 1890, have now been adopted. The adoption of the Public Health Acts Amendment Act, 1907, and of by-laws as to Nuisances are under consideration. New Building By-laws are also under consideration.

By-laws are in force with respect to Slaughter-houses and New Streets and Buildings. Regulations for dairies, cowsheds and milkshops are also in force.

*Slaughter-houses*—2 on the register; inspected periodically and occasionally at times of slaughtering. No tuberculous carcases were found.

*Dairies and Cowsheds.*—Two cowkeepers in the District and five outside the District are on the register. The cowsheds in the District are inspected regularly. There is no veterinary inspection of milk cows, and no action taken as to tuberculous milk.

*Bakehouses.*—There are six in the town, inspected and found clean.

## CHURCH STRETTON (Rural).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	45,106
<i>Population</i>	<i>at 1911 Census</i>	..	4,797
<i>Number of inhabited houses</i>	”	..	1,069
<i>Number of persons per house</i>	”	..	4.5

### General Character of the District.

“The District is one of hills and dales, highest across the centre from west to east, forming the watershed between the Severn and Teme river systems, and sloping gently to north and south. The natural drainage is by various small streams rising in the uplands, and affording good natural drainage towards the Severn on the north, or the Teme on the south side of the watershed. Three parallel ranges of hills run through the District from south-west to north-east, the “Longmynd” range, of Archæan age, along the western side; the steep escarpment of “Wenlock Edge,” of Silurian age, along the eastern border; while between lies a tract of Ordovician age, through which the Caradoc and Hope Bowdler range of hills rise. The elevation varies from 1,700 feet at the summit of the Longmynd moorland, to some 400 feet at the northern and southern limits of the District. The hillsides are largely cultivated, but in the higher parts are uninhabited moorland. Between the ranges are fertile valleys with several villages and many isolated farms and cottages.

“The District is entirely rural and agricultural. In the centre lies the small Urban District of Church Stretton. There is an unimportant exposure of coal measures at the north end of the District. These measures are not now worked.

## Statistics.

Death-rates per 1000 population from

Period.	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.	Infant Death-rate per 1000 Births.	Birth-rate.
1912	11.6	.21	.62	.0	.62	.41	.62	24	17.0

The infantile mortality rate was extremely low.

*Infectious Disease.*—Forty cases of scarlet fever, 2 of diphtheria, and 4 of erysipelas were notified. *Scarlet Fever.*—The cases occurred chiefly around Church Stretton, and were associated to some extent with school attendance. The spread was probably due to slight unrecognised cases. The 40 cases occurred in 22 households. Owing to a batch of cases in All Stretton and Little Stretton, Church Stretton school was closed for a month in November. The school was visited from time to time, and also absentees. One case was discovered in this way and one case at the routine medical inspection. The latter had been in attendance for about a month after the rash and a fortnight after peeling had commenced. No other cases occurred amongst school children as a result of this.

" Some of the cases showed the desirability of provision of Isolation Hospital accommodation for the District. In one case the patient was removed to Shrewsbury Isolation Hospital as a member of the household was expecting confinement. In two other cases the houses take in paying visitors regularly, and in one of these cases admission to the Shrewsbury Hospital was sought but could not be obtained. In another case in All Stretton the cottage had only one bedroom. Infection was introduced; the family of three very young children took it, and one, who was not infected until a month after the other two, had it in a virulent form and died. The accommodation was in no way suitable for the nursing of infectious cases, and had hospital accommodation been available the first cases would have been removed and the third child would in all probability have escaped."

*Phthisis.*—There were 9 notifications and 3 deaths. In fatal cases the Inspector visits and disinfects the premises.

The Council is recommended to adopt the suggestion in the County Council's scheme to make use of the Nurse-Inspector in connection with the Dispensaries for inspection under the Tuberculosis Regulations.

*Hospital Isolation and Disinfection.*—" There is no isolation hospital for the use of the District. Application has recently been made by the Church Stretton Urban District Council to the County Council for the formation of a large Hospital area in which the Rural District is included. An enquiry by the County Council into the matter is forthcoming. I have no doubt as to the desirability of this provision for all Districts, and have noted above, under remarks upon scarlet fever, the advantage of hospital accommodation for certain recent cases."

"The District has no steam disinfecter. The Inspector sprays out infected rooms at the end of a case."

*Water Supply.*—There is no public water supply in the District, but private supplies at Leebotwood, Plaish, Shipton, part of Wistanstow, and Woolstaston villages, and Woolstone hamlet in Wistanstow parish. Little Stretton is supplied by the Church Stretton Water Company, and All Stretton by a small local company. Bushmoor, Leemore Common, and Calico Bank are now fairly well supplied with water, with the exception of 6 houses on one property, whose supply has still to be carried from Botley Moor spring, about a quarter of a mile away. A supply to Cardington school by means of a drawpipe from St. James's well is under consideration.

*Sewerage and Drainage.—All Stretton.*—“I have reported previously on the drainage of this village. The exceptional feature here is the discharge of the main drain of a considerable private asylum, having a number of water-closets, directly into the brook, causing serious pollution. The Council has endeavoured to obtain the removal of this pollution by voluntary action by the owner, but without result. Under continued pressure by the County Council as to the stream pollution, the Council, in 1911, engaged a firm of engineers to survey and report as to a scheme of sewerage for this village. This report was received during last year and the estimated cost of a scheme, without purchase of necessary land, was some £1,400. The Council has had the question under consideration throughout the year, but no further steps have been taken, the Council being again in communication with the owner of the asylum.”

The drainage of individual houses is mostly discharged upon gardens or fields, or into the nearest ditch or watercourse, without causing obvious nuisance.

*Excrement Disposal.*—From notes of the Inspector it appears that there are some 75 water-closets, 100 to 200 pail closets, and 700 to 800 privies in the District. There were 3 conversions to pail closets but none to water-closets, during the year. Conversion of dilapidated and offensive privies to pail closets is urged.

*Housing.*—The cottages are mostly of considerable age and often undesirably small. “Owing to defective construction the light and ventilation in old cottages is often found to be unsatisfactory, especially as regards the bedrooms.”

*Housing Regulations.*—“The Inspector, who reported upon over 300 houses in 1911, inspected some 200 during last year, but confined his inspection book entries to 38 houses in which defects requiring notice were found.” Two closing orders were made. In both cases the houses were in a ruinous condition. “An old cottage at All Stretton in a ruinous state still remains tenanted. I certified it as unfit for habitation several years ago, and the Council, in 1911, ordered its closure. Difficulties in ascertaining the ownership have caused delay.”

*Permissive Powers.*—The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts Amendment Act, 1890, have not been adopted.

By-laws for common lodging houses are in force.

*By-laws.*—“I am of opinion that By-laws for new buildings might, with advantage, be adopted. Though little building takes place, especially of cottage property, the Census returns for 1911 show an increase of 64 houses in the 10 years preceding. Model By-laws applicable to Rural Districts are now available, and while giving the Council power to regulate essential matters of sanitation, would not be found restrictive. There has been and is in progress, the building of some 12 houses along the brook side in All Stretton, and it would be well for the Council to have the supervision afforded by these By-laws.”

*Common Lodging Houses*—2 on the register—both old ; inspected periodically.

*Dairies, Cowsheds, and Milkshops*.—Regulations are not in force. Their adoption has been recommended. There are 16 cowkeepers on the register. "I made a special inspection of most of the cowsheds in 1911, as described in the last report. The defects found were principally as to paving, lighting, and drainage, want of cleanliness in the sheds, foldyards and approaches. The Council decided to wait for the passage of the Milk Bill before adopting Regulations. Existing defects were pointed out to the cowkeepers, but little improvement has so far been effected in the conditions, as may be seen from the Inspector's tabulated statement, at the end of this report."

*Slaughter-houses*—three in the District ; no register and no By-laws. They are inspected occasionally. No tuberculous meat was found.

## CLEOBURY MORTIMER (Rural).

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	.. 44,338
<i>Population</i>	at 1911 Census	..	.. 6,976
<i>Number of inhabited houses</i>	"	..	.. 1,419
<i>Number of persons per house</i>	"	..	.. 4.9

### *General Character of the District.*

"Your District covers an area of 44,336 acres. I have estimated the population at the middle of the year at 7,020.

"It contains fifteen parishes and lies on the eastern slopes of the Clee Hills between the Severn and the Teme. It is very hilly and exposed, and a good deal of it several hundred feet above sea level.

"The District is an agricultural one, with a coalpit or two and quarries on the hill. An additional pit recently opened just over the borders, has resulted in a large demand for cottages, which are being built by the Company in this District.

"The Workhouse is at Cleobury Mortimer."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	10.5	.14	.71	.14	.71	.71	.57	66	25.6

*Infectious Disease*.—Nineteen cases of scarlet fever, 3 of puerperal fever, and 15 of pulmonary tuberculosis were notified. An outbreak of *scarlet fever* at Kinlet school necessitated closure and disinfection. The epidemic came to an end after certain books were destroyed.

*Phthisis.*—The cases were visited, inquiries made and instructions given. “ The suggestion of the County Medical Officer in his report, that the Council should have the services of the nurse attached to the Tuberculosis Dispensary for visiting these cases and keeping them under observation, seems to meet a difficulty that has been apparent for some time.”

*Measles and Whooping Cough* were both prevalent during the year, necessitating the closure of several schools.

*House Accommodation.*—Twenty-four houses were inspected under the Housing and Town Planning Act, and represented as unfit for habitation. Ten closing orders were made. The majority of these have not been closed. A number have been put in repair without closure, and one has been demolished.

“ I beg once again to suggest to the Council that additional cottages are required in your District, that steps should be taken to provide them especially on the Clee Hill. The work done under the Housing and Town Planning Act is seriously delayed by the feeling that the closure of cottages means either overcrowding or families leaving the District. Some of the houses recently reported on in the Clee Hill District have been very bad, with holes in the roofs and very damp throughout ; they require to be demolished.”

“ There has been a considerable number of new houses built at Highley and near to the village. These, to some extent, relieve the congestion there, but by no means meet all the requirements. The exodus of miners who are unable to find houses continues every week-end. They number from 150 to 200, and during the week are accommodated as lodgers. I am informed that the 1911 Census was taken when they were away at the week-end.”

*Water Supply.*—There are two public supplies, one at Highley and one at Cleobury Mortimer. They are both satisfactory. “ There are many houses without a satisfactory supply and many others where the supply is not above suspicion.”

*Sewerage and Drainage.*—New drains have been constructed at 11 houses, and new closets have been put in 10 houses.

*Sewage Disposal.*—“ No tank has yet been put down to intercept the solid matter on the Highley outfall sewer. This, I think, is very desirable in view of the growth of the village.”

*Milk and Dairies.*—There are 7 milksellers on the register. The premises have been periodically visited and are mostly satisfactory.

The *Slaughter-houses* have had attention.

*Factories and Workshops Act* has little application in the District.

*Bakehouses* are kept clean and sanitary.

*Permissive Powers.*—The Infectious Disease (Prevention) Act and parts of the Public Health Acts Amendment Act, 1890, are in force, together with By-laws relating to New Buildings, Slaughterhouses and Nuisances.

"It appears to me that the time has arrived when the Council should appoint a Special Committee to deal with the sewerage, water supply and scavenging of Highley; private builders are commencing to erect houses here, and if the Highley Mining Company continue to control the sewers and water mains, trouble is bound to arise, and the private builder will always find difficulty in conforming to the By-laws. The Council ought to take over the sewers, water supply and scavenging of the District, put the footpaths and roads in decent condition, and form a special area and levy a special rate for the District."

## CLUN (Rural).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	.. 82,206
<i>Population</i>	at 1911 Census	..	.. 6,565
<i>Number of inhabited houses</i>	,,	..	.. 1,517
<i>Number of persons per house</i>	,,	..	.. 4.3

### General Character of the District.

"The Rural District is essentially a hill country, lying in the south-west of the County, and on the borders of Wales. Much of the District lies at an elevation of 1,000 feet and upwards, especially in the northern and western parts. The centre and south-eastern parts consist of open valleys, at an elevation above Ordnance Datum of 400 to 600 feet, and broken and divided by small groups of hills. The main structure is that of an old elevated table-land much dissected, weathered down, and glaciated.

"The geological formation is much broken, the upper and lower Silurian and Ordovician measures being exposed in considerable areas, with less extensive exposures of the old Red Sandstone, and of Cambrian and Pre-Cambrian measures. The natural drainage is by various streams rising in the hill country to north and west, and forming the small rivers Onny and Clun, which leave the District through the valleys of the south and east to join the river Teme.

"The District contains 16 parishes, and is sparsely populated, and agricultural in character, much of the hill country being cultivated or grazed. A small area in the north was in the past worked for lead, barytes, and other minerals, but these industries are now practically extinct. The District contains the small market town of Clun in the south, and has several villages of small size which are principally placed in the valleys, and some smaller hamlets, and many isolated farmsteads scattered about the valleys and hillsides. The Borough of Bishop's Castle is within, and near the centre of, the District."

### Statistics.

Period	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	12.8	.46	.61	.15	.92	.61	1.53	51	23.8

*Infectious Disease.*—Four cases of diphtheria, 14 of scarlet fever, 5 of erysipelas, 1 of enteric fever and 1 of puerperal fever were notified. *Scarlet Fever.*—Seven of the 14 cases occurred in 5 families in Clungunford in the months of August, September and October, and were associated with

the school. "Another localised outbreak occurred in Ratlinghope parish. Six children in two families were infected, and the infection was very persistent. Four of these cases occurred in a farmhouse in a very isolated position. The first child was infected about January 14th, the source being quite obscure. A second child took it on February 11th, and two more on March 3rd and 6th. The cases recovered and the rooms were disinfected at the end of April. In June, a girl who came to the house to work on the 9th, went home with scarlet fever on the 22nd, and a boy from another District, who was on a visit in the neighbourhood, and who visited the house on June 21st, 22nd, and 23rd, went down with it on the 25th. I made careful enquiry and it appeared probable that the boy first infected in February had retained infection, or had a 'return' of infection, having suffered from 'cold' and discharging nose in the middle of June. There was no evidence of any other unrecognised cases having occurred in the family. The girl who went home with scarlet fever from this house on June 22nd, infected her younger sister some ten weeks later, and about a month after apparent complete recovery. This would appear to have been another 'return' case, and shows the persistence of infection in this small outbreak, lasting from January till the end of September."

An arrangement for the supply of antitoxin is in force.

*Phthisis.*—"Ten notifications of pulmonary tuberculosis were received under the Order of 1911. The cases were not as a rule visited, but in fatal cases I notified the Sanitary Inspector, who visited and disinfected the rooms."

The County scheme is recommended and the duties and powers of the District Council pointed out.

*Hospital Isolation.*—"There is no isolation hospital for the use of the District. An enquiry is to be held shortly into an application made by the Church Stretton Urban District Council to the County Council for the formation of a hospital area under the Isolation Hospitals Acts. The Clun Rural District is included in the proposed area. I should be glad to see the application successful and the District provided with efficient Isolation accommodation."

*Disinfection.*—The Sanitary Inspector sprays out infected rooms at the end of illness in notified cases. The Council possess an emergency steam disinfecter jointly with Bishop's Castle, but it is not used in routine disinfection.

*Water Supply.*—There are public systems at *Clun* and *Newcastle*, the supplies being from upland springs. Public pumps have in recent years been provided at *Chapel Lauen* and *Cefn Einion*. *Clungunford* has now a good supply from an upland spring, the water being taken from the private main of the principal property owner. Thirteen houses are supplied by the Council. The Council has carried out schemes for *Clunbury*, *Clunton*, and *Brockton*. *Clunbury* is supplied from a spring on Clunbury Hill. Twenty-four houses are connected. One thousand yards of main were laid and the cost of the scheme was £507. *Clunton* is supplied from a spring in pasture land, 34 houses being connected. The length of the main is 1,400 yards, and the cost of the scheme £608. *Brockton* is supplied from a well in a meadow from which the water flows by gravitation through the village. Twenty-five houses are supplied, 15 being connected and 10 supplied by standpipes. The cost of the scheme was £249. *Lydham* is supplied by the owner with water from the river Onny, after filtration through sand and charcoal. The safety of this supply depends upon the efficiency of filtration. *Chapel Lauen*.—The Council have the question of a supply from springs above Pentre under consideration. There are other small supplies provided by the owners at *Lydbury North*, *Acton*, and *Lydbury Down*; also for *Linley School*, a group of houses at *Norbury* and at *Little Brampton*. The possibility of a gravitation supply for *Kempton* is alluded to.

*Sewerage, Drainage, and Excrement Disposal.*—*Clun* is sewered for the most part, and the sewage discharges into the river. The Council have had a scheme under consideration, and the effect of the Eighth Report of the Royal Commission is now also being considered. *Elsewhere* there are no public sewers.

Eight privies were converted into pail closets during the year. Figures relating to a number of villages inspected show that there are 16 water-closets, 25 pail closets, and 180 privies. This may be taken as a general indication of the proportion throughout the District. “There are instances in Clun and Clungunford of privies discharging direct into running streams. I have often advised the abolition of these as unnecessary and dangerous pollutions.”

There is no public scavenging in the District, but a tip is provided at Clun.

*Housing.*—“Speaking generally, the housing conditions in the District are very fair, though there are many old houses requiring periodic inspection and attention to keep them in habitable condition.” The amount of accommodation appears to be adequate for the present population.

*Housing Regulations.*—From various causes little has been done during the year. It should now be possible to make better progress. Arrangements have been made for systematic inspection of some parts of *Clun* to be undertaken this year.

*Permissive Powers.*—The Public Health Acts Amendment Act, 1890, and the Infectious Disease (Prevention) Act, 1890, have not been adopted, and the Council possesses no Urban powers under the Public Health Act, 1875. The Council has not made any By-laws.

*Slaughter-houses.*—There are 3 in the District; visited periodically but not specially at times of slaughtering. No tuberculous carcases have been found.

*Dairies, Cowsheds, and Milkshops.*—There are 6 cowkeepers and milksellers on the register; visited periodically. The Regulations have not been adopted. There has been no veterinary inspection of milk cows.

*Bakehouses.*—There are 7 in the District; inspected periodically and very fairly kept.

## DAWLEY (Urban).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	2,790
<i>Population</i>	<i>at 1911 Census</i>	..	7,701
<i>Number of inhabited houses</i>	„	..	1,678
<i>Number of persons per house</i>	„	..	4.6

### *Physical Features and General Character of the District.*

“The District lies at a considerable elevation upon the Shropshire Coalfield and tableland, of which it forms one of the higher parts. Its surface falls irregularly from north and north-west to south and south-east, and from 670 feet O.D. to some 400 feet O.D. roughly. The surface drainage is good owing to the steep fall of this part of the northern watershed of the Severn. The geological formation is the Carboniferous, the District being for the most part upon the Coal Measures, but with small exposures of the Millstone Grit in the south-western part.

" As regards its general character, it may be described as a coal and iron mining and iron-working District largely worked out. Coal mines, long out of work, and dismantled ironworks are common features. At the present time it is chiefly the place of residence of an industrial community, many of whose members work in one or two large modern engineering or pottery works within the District, while large numbers work in mines, ironworks, and brick and tile works outside the District.

" For an Urban community it is very scattered in character. There is a compact business centre, with some continuous lengths of houses radiating for some distance from it along the main roads. The rest of the District is practically Rural in character, with houses isolated or in groups of more or less number.

" The District is naturally very healthy, being high, dry, and wind swept, and surface drainage being good."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	17.3	.0	1.30	.26	2.07	1.42	1.42	74	26.2

The death-rate for the year shows a considerable excess over recent years, but it was not raised by a higher infantile mortality or deaths from infectious diseases.

A system of health visiting under the Notification of Births Act and organised by the County Council, is recommended.

*Infectious Disease.*—Twenty-four cases of scarlet fever, 2 of diphtheria, and 4 of erysipelas were notified. The cases of *scarlet fever* were scattered outbreaks, and had no definite connection. The spread was probably by slight unrecognised cases.

*Diphtheria Antitoxin.*—The Council have a contract with a chemist for the supply of antitoxin for medical men, for use in cases of diphtheria amongst the poorer persons.

No school was closed during the year for infectious disease.

*Phthisis.*—Twenty-three cases were notified and 10 deaths. They were not systematically visited, but the Sanitary Inspector was informed for the purposes of disinfection and inspection. In regard to the provision of a nurse-inspector in the County Council's scheme Dr. Gepp says:—"I have recommended the Council to adopt this suggestion as it will be absolutely essential to the exercise of adequate and continuous supervision, and of education of infected households in means of preventing spread of infection. The cost to District Councils is estimated at about twenty-six shillings per 1000 of population, and in my opinion offers a great benefit at a very small cost."

*Isolation Accommodation.*—There is a joint small-pox hospital with Shifnal Rural District. An Order has been made by the County Council constituting a hospital district of seven districts including Dawley.

"I am of opinion that this step will be to the advantage of the District, and that in course of time the utility of a hospital for isolation of infectious disease will be appreciated."

"In the recent outbreak of scarlet fever there occurred cases in which isolation, apart from the patient's homes, was desirable, either on account of the case occurring on business premises, or in the case of a small house with a family where proper isolation was impossible. Occasionally enquiry is made on behalf of a patient for means of public isolation."

*Disinfection.*—The Sanitary Inspector sprays infected premises and the Council provides disinfectants. A small portable steam disinfecter is recommended.

*Water Supply.*—The supply is from Madeley reservoir of the Borough of Wenlock Water Works at a charge of 6d. per 1,000 gallons up to 50,000 gallons per day, and 5d. per 1,000 in excess of this up to 100,000 which is the limit. The water is pumped to two reservoirs, a lower level of 175,000 gallons and a higher level of 25,000 gallons. The average daily consumption was 19,685 gallons, being less than that for 1911. The amount of water works out at about 3 gallons per head. Thirty-seven houses were connected to the main during the year, and the total number now connected is 320. One hundred and fifty houses are outside the rating distance for the public supply. This leaves 1,200 houses supplied from the Council's standpipes, 118 in number. The Public Health (Water) Act, 1878, was adopted in 1910, giving power to rate houses within 200 feet of the standpipes.

*Sewerage and Drainage.*—Many of the old sewers are rough culverts with catchpits. The Council is now working in accordance with plans prepared by a firm of engineers. "The present outfalls of the main sewers are, as a rule, into open channels, running through agricultural land or waste ground, and out of the District in various directions, and eventually into water courses draining to the Severn."

"*Little Dawley.*—The work on the sewer outfall, contemplated by the Council, was postponed to allow of the carrying out of other sewerage work more immediately needed."

*Excrement Disposal and Scavenging.*—The number of water-closets in the District is 66, earth closets 63, and privies 1,179. During the year 15 privies were converted to water-closets and 37 to earth closets. "The District being so scattered and of semi-rural character, water-carriage, though capable of much extension, will not be practicable throughout. The conversion therefore, of insanitary vault privies into pail closets, or as has been effected in some cases under the Housing Inspection, into privies with limited fixed receptacles placed above ground, should be pressed."

*Scavenging.*—The Council provides a horse and cart for the scavenging of privies and removal of house refuse at cost price of the work.

*Housing.*—The majority of the houses are small. An increased demand has led to a good deal of improvement in recent years.

Good work is proceeding under the Housing Inspection Regulations. "The Inspector is working in accordance with a scheduled list which I prepared in consultation with him. The Inspector's record of inspection are regularly considered by the Sanitary Committee, who give orders, where necessary, for notices to be served to remedy defects. To a large extent, however, the work has been done by preliminary notices served by the Inspector, detailing the defects and offering advice and assistance to the owner in remedying them."

Cases of overcrowding come to light from time to time. Four were dealt with during the year.

*Permissive Powers.*—Part III. of the Public Health Acts Amendment Act, 1890, was adopted in 1902. The Infectious Disease (Prevention) Act, 1890, is not adopted in the District. The adoption of certain parts of the Public Health Acts Amendment Act, 1907, has been under the Council's consideration.

The Council has made By-laws with respect to Nuisances, New Buildings, Slaughter-houses, and Common Lodging Houses.

*Slaughter-houses*—eleven on the register; inspected regularly and at times of slaughtering. One tuberculous carcase was found and destroyed.

*Dairies, Cowsheds, and Milkshops.*—Regulations are in force. Twenty-five premises are on the register; inspected periodically.

*Bakehouses*—eleven on the register; in a fair condition and limewashed regularly.

## DRAYTON (Rural).

<i>Medical Officer of Health</i>	..	..	A. MACQUEEN, M.D.
<i>Area in Acres</i>	..	..	51,384
<i>Population</i>	at 1911 Census	..	12,340
<i>Number of inhabited houses</i>	„	..	2,846
<i>Number of persons per house</i>	„	..	4.3

### *General Character of the District.*

"The Rural Sanitary District of Drayton comprises an area of upwards of 51,000 acres, situated in the great central plain of England. The general elevation of the District is about 300 feet. The District extends from the parishes of Adderley and Norton-in-Hales on the north, to the parish of Woore on the north-east, where the three Counties, Cheshire, Staffordshire, and Shropshire, join; to the south, as far as and including the parishes of Hinstock and Child's Ercall, and the villages of Eaton and Little Bolas in Stoke parish. On the east it is bounded by the river Tern and the parish of Cheswardine. On the west it extends to and includes the village of Stoke-upon-Tern, the parish and village of Hodnet, and the hamlet of Marchamley. Near the centre of the District is the town of Market Drayton, with the township of Little Drayton adjoining, and the parish of Moreton Say. The formation throughout is the new red sandstone, which attains its greatest elevation in England in the Hawkstone Hills, near the western limit of the District. The river Tern, in its winding course to the Severn, drains the greater portion of the District. The land in general contour is level, well watered, highly cultivated, and there are some finely timbered estates. The population is chiefly employed in agricultural pursuits."

## Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	12.0	.32	.48	.40	.64	.64	1.45	75	19.2

The birth-rate, 19 per thousand, was extremely low.

*Infectious Disease.*—Eighteen cases of scarlet fever, 15 of diphtheria, 3 of erysipelas, 1 of cerebro-spinal meningitis, 1 of poliomyelitis, and 7 of pulmonary tuberculosis were notified. Eleven cases of *scarlet fever* and 8 of *diphtheria* were removed to the Isolation Hospital. The notification of *ophthalmia neonatorum* awaits the sanction of the Local Government Board.

The steam disinfector is used to disinfect clothing before the patients leave the hospital. Rooms are disinfected under the direction of the Sanitary Inspector.

*Diphtheria Antitoxin.*—The cost of administering antitoxin in cases of diphtheria is provided for by the Council.

*House Accommodation.*—Under the Housing and Town Planning Act, 92 houses were inspected, and in 72 cases defects were remedied without closing orders being resorted to.

Building By-laws are in force in Market Drayton and Little Drayton, and should be extended to the whole District.

*Lodging Houses, Bakehouses, and Slaughter-houses* are regularly inspected.

“*Dairies, Cowsheds and Milkshops* were systematically inspected in 1910–11, and a special report sent to the Local Government Board and to the County Council. A note of the defective conditions found was sent to each occupier, and a good many improvements have resulted. Much more remains to be done in the way of structural alterations for the increase of lighting and ventilation. There are 114 cowkeepers and milk sellers on the register, and the Sanitary Inspector is making a detailed inspection throughout the District.”

“*Removal and Disposal of House Refuse* is regulated by By-laws, and the responsibility falls upon the occupier. A public system should be adopted. The chief objection to this is the cost, but the increase in the rates would probably not exceed the amount at present paid by the majority of the occupiers for removal of refuse. The adoption of a public system would tend to decrease the prevalence of infectious disease. It is now well known that refuse heaps are breeding places for flies, and flies carry the germs of infectious diseases from house to house.”

*Excrement Disposal.*—The water-carriage system should be made compulsory wherever practicable when the sewage scheme is carried out.

*Sewerage and Drainage.*—“The sewage of Market Drayton is still untreated, and continues to pollute the river at the old outfall. A revised scheme for the sewerage and the treatment of the sewage has been prepared by a sanitary engineer, at an estimated cost of about £23,000. This scheme has been approved by the Council, and a Local Government Board enquiry is to be made at the end of April. The Parish Council has applied for Urban powers, with the view of carrying out another scheme at an estimated cost of about £14,000. If this scheme should prove to be as feasible and effectual as the scheme approved by your Council, it would mean a saving of about £9,000 to the ratepayers of the town.”

*Water Supply.*—“The mains of the Market Drayton Water Company furnish an abundant and excellent supply of water to Market Drayton, Little Drayton, Betton, and Ridgwardine. The spring for the supply of Norton-in-Hales has been tested for a considerable time, and found to be constant, and sufficient in quantity.”

## ELLESMORE (Urban).

<i>Medical Officer of Health</i>	..	..	W. S. SCOTT, M.B. CH.B. EDIN.
<i>Area in Acres</i>	..	..	.. .. 1,206
<i>Population</i>	at 1911 Census	..	.. .. 1,946
<i>Number of inhabited houses</i>	..	..	.. .. 454
<i>Number of persons per house</i>	..	..	.. .. 4.3

### General Character of the District.

“The Urban District of Ellesmere is a market town situated in north-west Shropshire, occupying an area of 1,204 acres. The population at the last Census was 1,946. It is now estimated approximately at 1,953. The inhabitants are mainly dependent on agriculture, there being no manufactures of any importance.”

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	9.7	.0	.51	.51	.0	.0	2.05	62	16.3

*Infantile Mortality.*—The low infantile mortality is partly attributed to the wet season and the absence of diarrhoea.

*Infectious Disease.*—No case of scarlet fever, 3 of diphtheria, 1 of puerperal fever, and 3 of pulmonary tuberculosis were notified. One of the cases of *diphtheria* was imported and the other two occurred in one house with sanitary defects.

In phthisis the houses are visited and advice is given ; in cases of death the bedding is destroyed.

*Disinfection and Isolation.*—The arrangements for *disinfection* are as in the Rural District.

*Isolation.*—“ There is no isolation hospital in the District, and although, in view of the fact that epidemics of infectious disease in this District are rare, there may seem to be no necessity for the existence of an isolation hospital, it is nevertheless my opinion that war cannot be waged effectually against the Zymotic diseases, the very existence of which is a reproach to civilization, and that treatment cannot be efficiently carried out in the homes of the poor under present conditions. I believe, therefore, that the provision of a District Isolation Hospital is strongly advisable.”

*Diphtheria Antitoxin.*—Arrangements have been made for supplying it free for curative and preventive purposes, and for the latter purpose fees for injection are paid.

*Water Supply*—from the Liverpool main, most of the houses having water laid on, others being supplied from standpipes.

*Sewerage and Drainage.*—The town is well sewered, the sewers being adequately ventilated and flushed. With regard to the effect of the Eighth Report of the Commissioners on Sewage Disposal, “ I have advised the Council to engage an expert to make certain investigations and ascertain how far the standard of purification of the effluent might be relaxed in accordance with the recommendations of the Sewage Commissioners.”

*Removal and Disposal of Refuse.*—“ For the most part the houses in the District are provided with open refuse receptacles which are emptied periodically by the tenants, and the contents deposited in a refuse heap just outside the town. Many of the smaller houses, however, have no receptacle at all for refuse. This removal of refuse at the will of the tenant is open to serious objection. The regular emptying of waste material cannot be relied upon. Heaps of old rubbish readily become breeding places for flies and other noxious insects, which are now known to act as carriers of disease. The regular removal of refuse under Sanitary Authority control would be a great step towards the perfecting of the Public Health of the District.”

*Excrement Disposal.*—“ There are four privies in the town and 16 on the outskirts. They are periodically emptied and their contents disposed of in a manner not prejudicial to the public health. All the larger houses are provided with flush-out water-closets. The remainder are provided with pan closets of a good type, but have no water laid on for flushing purposes. This is a serious defect and steps should be taken to remedy it.”

*Inspection of Meat and Foods.*—There is no routine inspection. No carcases have been condemned for tuberculosis.

*Slaughter-houses*—4 on register—frequently inspected—in good condition. An amendment of the By-laws is suggested.

*Milk Supply.*—No regulations are in force. There are 9 milksellers on the register. The premises are in a satisfactory condition and are regularly inspected.

*House Accommodation*—on the whole satisfactory. No cases of overcrowding have come under notice. The records under the Housing and Town Planning Act are kept on cards. Twenty-four inspections have been made and in 18, alterations have been ordered.

## ELLESMORE (Rural).

<i>Medical Officer of Health</i>	..	..	W. S. SCOTT, M.B., CH.B. EDIN.
<i>Area in Acres</i>	..	..	.. 51,115
<i>Population</i>	at 1911 Census	..	.. 8,365
<i>Number of inhabited houses</i>	..	..	.. 1,752
<i>Number of persons per house</i>	..	..	.. 4.7

### *General Character of the District.*

"The Rural District of Ellesmere comprises an area of 51,115 acres. The District is entirely agricultural, and the houses are widely distributed. There are a few small villages, the largest of which is Baschurch. The District is for the most part undulating, but some portions are very flat. Nearly all the land is under cultivation, and the subsoil is gravel, with some clay and drift in places."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	11.9	.0	.47	.12	1.07	.36	1.07	78	18.3

The infantile mortality rate was the lowest since 1907.

The Notification of Births Act is not in force and there does not seem to be any urgent necessity for it.

*Infectious Disease.*—Ten cases of scarlet fever, 6 of diphtheria, 4 of erysipelas, 2 of puerperal fever, and 8 of pulmonary tuberculosis were notified. The cases of *scarlet fever* were scattered, and infection could not be traced. Three of the cases of *diphtheria* occurred in the Baschurch Home, the drainage of which has now been improved. "Immediately on receipt of notification of any infectious disease the home of the patient is visited by myself and your Inspector, investigations are made into the probable cause of infection, and instructions given in writing for the prevention and spread of the disease. After recovery, disinfection of the premises is carried out under the supervision of the Inspector."

*Disinfection and Isolation.*—"The Ellesmere Rural Council has now made arrangements with the Wem Urban District Council by which their steam disinfecting apparatus may be hired when occasion arises. Also, I have obtained the permission of the Council to order the destruction of bedding in suitable cases, the Council defraying the cost of new bedding in the case of the poor. When there is a case of infectious disease in a house from which children attend school, the head teacher is notified by me of the fact. Also notice is given to him of the date of disinfection. There is no isolation hospital in the District, and in view of the fact that

isolation is difficult to procure in the homes of the poor, and that efficient nursing and treatment in many cases is an impossibility, the lack of an isolation hospital is to be deplored."

Arrangements have been made for supplying *antitoxin* for curative and preventive purposes.

Cases of *phthisis* are visited and instructions given.

*Water Supply*.—*Cockshutt* has an excellent public supply. A scheme is about to be provided for *Dudleston Heath*. The water supply of *Baschurch* should be greatly improved by the scheme of drainage under consideration. The rest of the District is supplied by wells insufficiently protected from surface drainage. This defect is gradually being remedied under the Housing and Town Planning Act.

*House Accommodation*.—A list of houses to be inspected under the Housing and Town Planning Act is kept and records of each inspection. Ninety inspections have been made, and in most cases repairs have been effected. The principal defects are those of ventilation, lighting, dampness and closet accommodation. The absence of fireplaces in sleeping rooms is the commonest defect.

*Sewerage and Drainage*.—"A scheme of drainage for the village of *Baschurch* has been formulated, and its accomplishment is now only a question of time."

*Excrement Disposal*—mostly by privies. The substitution of pail closets is gradually being effected. The actual disposal of excreta presents no difficulties.

*Inspection of Meat and Foods*.—There is no inspection. No carcases have been condemned for tuberculosis.

*Milk Supply*.—There are no regulations in force. There are 45 cowkeepers and milk-sellers on the register, and the premises have been inspected twice during the year and found in good condition.

*Bakehouses*.—There are 9 on the register; frequently inspected and in good condition. There are none underground.

*Permissive Powers*.—The Public Health Acts Amendment Act, 1890, Infectious Disease Prevention Act, 1890, Public Health Acts Amendment Act, 1907, have not been adopted either wholly or in part. Urban powers have been granted under Section 25, Public Health Act, 1875. There are no By-laws in force with regard to New Streets and Buildings, Nuisances, Cleansing of Footways, Private Scavenging, or Slaughter-houses.

"The most important question in Public Health matters in the District is the improvement of the old cottages, particularly with regard to increase of ventilation, of air space and of light, and this work is gradually being effected under the Housing and Town Planning Act."

## LUDLOW (Urban).

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	420
<i>Population</i>	<i>at 1911 Census</i>	..	5,926
<i>Number of inhabited houses</i>	"	..	1,372
<i>Number of persons per house</i>	"	..	4.3

### Character of the District.

"It is situated on the south-west border of the County on the lower western slopes of the Clee Hill. It is bounded on the north, south, and west by the rivers Corve and Teme, which form a junction on its western side. The industries of the District are those of a market town, which serves the neighbouring agricultural district. In addition, it is to some extent a residential place, and is much frequented by visitors on account of its historical interest."

"Its subsoil is clay and gravel overlaying the old Red Sandstone, and the Ludlow series of shales, sandstone, and limestone of the upper Silurian group."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	12.2	.0	1.19	.51	1.92	.68	1.36	44	23.0

*Infectious Disease.*—Twelve cases of scarlet fever, 2 of erysipelas, and 10 of pulmonary tuberculosis were notified. *Scarlet Fever.*—“Three cases occurred in one house in January. In November a case was notified, which was followed by three others in the same house, and in December five further cases occurred. The greater proportion of the later group were connected with one school, and this was closed in consequence. Had the District possessed an Isolation Hospital, it is very probable that only the first case would have occurred, because the second was a fortnight after the first, and in the same house.”

The cases of phthisis were visited and instructions and disinfectants given. The houses were inspected. “The fact that there were seven deaths from this disease, several of which had not been notified, suggests that there are probably double the number of cases in the town, to what have been notified.”

The suggestion of the County Medical Officer of Health that the nurse to be attached to the Tuberculosis Dispensary should be employed by the Council to visit these cases is approved of.

*House Accommodation.*—Thirty-five houses were inspected under the Housing and Town Planning Act, two were represented as unfit for habitation and one was ordered to be closed.

" Certain congested areas exist that can only be put right by the demolition of a number of cottages, and, in addition, many others owing to their great age have reached the limit of their usefulness as dwellings, and cannot much longer be considered fit for habitation. The building of a number of cottages on the outskirts of the town seems the best solution of the housing problem in the Borough. In the meantime steady and persistent effort is necessary to improve the existing cottages. Much work requires to be done in this direction."

*Water Supply.*—During the year it has been good both in quality and quantity. "A periodic bacterial analysis of the water is, I think, still desirable, so that any variation of the standard of purity now attained may be noted and the cause sought for."

*Excrement Disposal.*—Sixteen privies have been converted into water-closets during the year, leaving 106 privies to be dealt with. "A number of these are situated in positions that cannot be said to constitute a nuisance, and will require to be dealt with under Section 39 of the Public Health Acts Amendment Act of 1907."

*Sewage Disposal.*—The effluent has apparently been satisfactory, but frequent analyses are required to determine this.

*Removal of House Refuse.*—Covered galvanised ash receptacles are recommended. The Council have a suitable tip outside for night soil and ashes.

*Factories and Workshops.*—There are 62 buildings requiring inspection, including 10 bake-houses. They have all been inspected and found sanitary. The register might be kept more up to date.

*Cowsheds and Dairies*—4 on register, 10 visits paid and no defects noted.

*Slaughter-houses* have been frequently visited. A number of them are badly situated.

## LUDLOW (Rural).

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	.. 66,348
<i>Population</i>		<i>at 1911 Census</i>	.. .. .. 9,438
<i>Number of inhabited houses</i>	,,		.. .. .. 2,057
<i>Number of persons per house</i>	,,		.. .. .. 4.6

### *General Character of the District.*

" The District lies on the western slopes of the Clee Hills, and for the most part is hilly in character the levels varying from 1,500 O.D. on the Titterstone Clee to 300 O.D. in the valley of the Cerve. The population is thinly scattered except at two points, viz., Clee Hill, where a number of quarrymen working at the different granite works live, and at Craven Arms, a railway centre of some importance. Except at these two places the District is an agricultural one, with a considerable number of residential estates scattered throughout it.

" The District comprises twenty-four parishes, covering 66,350 acres. At the last Census there were 2,003 inhabited houses, giving an average of 4.7 per house. I have estimated the population at the middle of the year at 9,420."

## Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	10.6	.11	.21	.11	.32	.74	1.38	47	24.8

" Both the general death-rate and the infantile must be regarded as highly satisfactory, they equal the best results of any year on record."

" Of the infant deaths the great proportion of them were attributed to conditions existent at birth."

*Infectious Disease.*—Thirteen cases of scarlet fever, 6 of diphtheria, 2 of erysipelas, 1 of puerperal fever, and 11 of pulmonary tuberculosis were notified. There was a small outbreak of scarlet fever in connection with Diddlebury School, 4 cases in all. The outbreaks of *diphtheria* were unconnected, except where they occurred in the same house.

*Phthisis.*—The cases were all visited, instructions given and inquiries made. " It has not been possible to follow the cases up, and the suggestion of the County Medical Officer, that the Council should employ the nurse, who will be attached to the Tuberculosis Dispensary for this purpose, would appear to meet the difficulty very well. These cases ought to be under the supervision of the officers of the Sanitary Authority from beginning to end, and it is not possible under existing conditions without assistance."

*Antitoxin* is now supplied free of charge for use in poor patients.

*House Accommodation.*—One hundred and twenty-six houses were inspected, and defects were found in 54. In 11, defects were remedied and 43 are under consideration.

*Sewerage and Drainage.*—The effluent from the Craven Arms sewage works is satisfactory. Recommendations are made for the improvement of the sewerage of Ashford Carbonel and Ashford Bowdler.

" At Ashford Bowdler the open sewer should be piped in. It receives the drainage from 120 houses, and is a serious nuisance to the village. I would point out that in both these cases, if the nuisance were a private one, the Council would not allow it to continue a day longer than necessary."

*Water Supply.*—Plans are being got out for the improvement of the water supply of *Craven Arms*.

" The question of supplying *Brand Hill* with water has been under the consideration of the Council, a number of houses were having no supply at all without carrying it about a quarter of a mile. The consent of the Landowners has been got to the Council putting in a tank and doing what is possible and necessary."

*Dairies and Cowsheds*—27 in number ; inspected twice a year, and beyond want of cleanliness in a number, no defects were found.

*Slaughter-houses*.—“ The slaughter-houses are all in fair condition, and are visited frequently, they are so scattered over the District that no regular inspection of meat is possible, but from such observation as is possible I am of opinion that the quality is very good. Large quantities are sent out of the District, and this makes the inspection more necessary but more difficult.”

*Factories and Workshops*.—No register is kept, but they are visited and inspected, and no defects have been found.

*Bakehouses* are clean and mostly well ventilated.

*By-laws* are in force in regard to Slaughter-houses, Dairies, Cowsheds and Milkshops, New Streets and Buildings, Cleansing of Ashpits, Earth Closets, Privies and Cesspools, and also for Nuisances (1903).

## NEWPORT (Urban).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	.. 768
<i>Population</i>	at 1911 Census	..	.. 3,250
<i>Number of inhabited houses</i>	„	..	.. 738
<i>Number of persons per house</i>	„	..	.. 4.4

### Physical Features and General Character.

“ The Urban District is of small area, of rather more than a square mile, lying on the eastern border of the County. It is level in contour, the general elevation being some 250 feet above Ordnance Datum. The natural drainage is to the west, but there is no stream of any importance. The subsoil is the Bunter beds of the New Red Sandstone. The District includes the town of Newport, consisting chiefly of one long and wide street about one mile in length, running north and south, with several narrow lanes and passages and courts running from it at right angles. This part of the town is old and compact, and there is about the centre some crowding of houses upon area. To east and west is open country with extensions of more modern villa residences and artisan cottages along the roads converging on the town, and some outlying collections of houses. Newport is a market and residential town. There is a brewery and a gasworks, and a creamery. The Newport Union Workhouse is within the District.”

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	9.5	.0	.31	.0	1.54	.0	1.85	60	15.4

The death-rate was exceptionally low, and the infantile mortality rate was also favourable.

*Infectious Disease.*—One case of scarlet fever and one of erysipelas were notified. The source of infection of the case of *scarlet fever* was obscure. During recent years there have been two sharp outbreaks of scarlet fever. Referring to this the report says:—"The outbreaks have been sharper and the disappearance more rapid than is usual in my experience in a small urban community. Explanation is difficult, but I am inclined to think that the removal of a considerable number of the cases to the Isolation Hospital may have had a good deal to do with the rapid decline and disappearance."

There is an arrangement for the supply of *antitoxin*.

*Phthisis.*—There were 7 notifications and 1 death. Two of the cases were admitted to the County Sanatorium and one to a sanatorium outside the County. The County scheme for dealing with tuberculosis is generally approved.

*Isolation Accommodation.*—There is a small hospital of two beds for two persons of each sex suffering from the same disease. With reference to the scheme to include 4 Urban and 3 Rural Districts, the report says:—"The arrangement will, in my opinion, be to the advantage of the Urban District whose hospital was insufficient and practically incapable of extension."

The present building may be found suitable for accommodation of advanced cases of phthisis if it is retained.

*Small-pox.*—The Council have a site for the erection of a tent along with the other authorities in the Newport Union.

*Disinfection.*—The Sanitary Inspector disinfects infected rooms with a spraying apparatus.

*Water Supply.*—The District is supplied from three wells in the Bunter Beds. The water is artesian. The consumption is about 30 gallons per head per diem. Five hundred and eighty-four houses in the town are connected to the mains, and 120 are supplied from hydrants. Analysis in 1911 showed the water to be of high bacterial purity.

*Sewerage and Drainage.*—The town is sewered and the sewers have manholes for flushing and surface openings for ventilation. The outfall works consist of grit chamber, open septic tank and single contact filter, the effluent passing on to the land, which is under-drained to a depth of six feet. Twenty-one houses were connected to the sewers during the year. A special inspection was made at Springfield Terrace and important recommendations made with regard to privies, drainage and water supply.

*Excrement Disposal.*—There are 566 water-closets, 16 earth closets and 237 privies. The privies are of old and defective type, having underground vaults of considerable size and infrequently scavenged.

Some 92 privies have been abolished in the past 4 years and water-closets substituted.

"In my opinion the abolition of these dangerous nuisances could be materially assisted and hastened by the Council taking definite statutory proceedings in a few cases."

*Scavenging.*—The scavenging of privies and removal of house refuse is carried out by the Council. Active steps have been taken during recent years to abolish old ashpits and to substitute sanitary ashbins. Except for a small number of ashpits, a weekly removal of refuse is universal.

*Housing.*—There are a number of worn-out old houses in the town, mainly in the lanes and passages opening off the main street. Some are barely fit for habitation and need special attention.

*Housing Regulations.*—The records are kept on loose sheets and considered by the Sanitary Committee at their ordinary meetings. Not much progress has so far been made. In 1911, 71 houses were inspected and 65 remained under consideration at the end of the year. During last year only 16 houses were reported on, making 87 in the two years, of which 65 are still under consideration. Alterations in the method of procedure are recommended. As a result of a special inspection, 4 houses in one row were represented as unfit for habitation. These 4 houses remain under consideration.

*Permissive Powers.*—The Public Health Acts Amendment Act, 1890, Part III., and the Infectious Disease (Prevention) Act, 1890, have been adopted, also Parts II., III., IV. (Sects. 52 to 56, and 58), and Part V. of the Public Health Acts Amendment Acts, 1907.

By-laws are in force with respect to :--Nuisances, New Streets and Buildings, Slaughter-houses, and Common Lodging Houses.

*Slaughter-houses*—10 on the register; frequently and regularly inspected. Much attention is given to inspection of meat, which has been put on a much more satisfactory footing. Sixteen tuberculous carcases or parts were found, and also 21 parts or carcases were found unsound for other reasons. Affected carcases were surrendered and destroyed. Mr. W. T. Wilson, M.R.C.V.S., has been engaged as consultant expert.

Three knackers' licences have been issued by the Council. No infringement came under notice.

*Common Lodging Houses*—three in the District; regularly inspected and kept in accordance with the By-laws.

*Dairies, Cowsheds, and Milkshops.*—Regulations are in force. The number of dairies on the register is 24. They are inspected regularly.

*Bakehouses*—eight on the register, including one underground; found generally in good order.

## NEWPORT (Rural).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	.. 22,808
<i>Population</i>	<i>at 1911 Census</i>	..	.. 6,005
<i>Number of inhabited houses</i>	,,	..	.. 1,306
<i>Number of persons per house</i>	,,	..	.. 4.6

### *General Character of the District.*

" The District is in part agricultural and part industrial, and lies within the eastern border of the County. The northern and large part is on the Shropshire plain, here formed of the Bunter beds of the New Red Sandstone, and is entirely agricultural. The elevation of this part varies from 150 to 300 feet above Ordnance Datum. The southern and much smaller part rises rather rapidly from the plain, reaching some 500 feet elevation at the extreme border on the south, and comprises the apex of the extensive triangular coalfield, which has its base some miles to the south. This part lies upon the coal measures, with a small intrusive outcrop of much broken older strata, forming Lilleshall Hill. The natural drainage is by various small streams from the south and east flowing towards the west, and falling into the Tern river outside the District.

"There are nine parishes in the District, all agricultural, except the large parish of Lilleshall, which is in part agricultural, but also contains the industrial area of Donnington Wood, several collieries and some engineering and other ironworks, employing the majority of the workers in this area."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	9.5	.33	.17	.0	1.17	1.0	1.17	56	20.7

The death-rate and the infantile mortality rate were both very low for the year.

*Infectious Disease.*—Three cases of scarlet fever, and one of diphtheria were notified. There was no traceable connection between the cases of *scarlet fever*. The case of *diphtheria* was infectious for a prolonged period, as shown by bacteriological examination.

Arrangements are made for the supply of *antitoxin*.

*Phthisis.*—There were 8 notifications and 1 death. The cases were not visited but the premises were disinfected in the fatal case. The County Council's scheme for dealing with tuberculosis is generally approved.

*Hospital Isolation.*—There is no isolation hospital for the use of the District, but arrangements for a tent in the case of small-pox. With reference to the proposed joint hospital, the report says:—"Seven Districts, four Urban and three Rural, are included in the area. I am of opinion that this step will be to the advantage of the District, and that in course of time the utility of a hospital will be generally appreciated."

*Disinfection.*—The Sanitary Inspector disinfects in all notified cases with a spray apparatus, and disinfectants are supplied.

*Water Supply.*—"The District is now well supplied as regards all the main centres of population and the majority of the inhabitants. The steps taken by the Council, and by the Duke of Sutherland as principal property owner, have been given in detail in previous reports."

The total number of houses in the District is 1,307, of which 700 are supplied by public or private mains and 607 by private wells and springs. *Lilleshall Village*, together with *Muxton*, *Donnington*, and the *industrial area of Donnington Wood*, all in the Lilleshall parish, are supplied by the works of the Duke of Sutherland. The water is raised from a well in the Bunter measures below Lilleshall village, by a wind engine to reservoirs on Lilleshall Hill. The two reservoirs hold 404,000 gallons. Some of the houses at the higher levels of Donnington Wood are supplied from Hilton Bank. The completion of the scheme has been a great advance in the sanitation of the District. Two hundred and sixty-four out of 271 houses leased by the Lilleshall Company are supplied. In all some 504 houses out of 597 in the parish are supplied from mains. *Tibberton village* is supplied from a well, the water being raised by a wind engine. *Edgmond village* has a private supply from a well in the sandstone, water being raised by a wind engine and laid on to several houses and to a public fountain. *Elsewhere* the supply is from pumps and wells.

*Sewerage, Drainage, and Excrement Disposal.*—There are few recognised public sewers. Edgmond village is drained to one or other of four sewers which have separate outfalls. The works are looked after by the Surveyor, and have been found free from objection. The drainage of Donnington Wood was greatly improved in 1905 by the Lilleshall Company.

There are 39 water-closets, 54 earth closets, and 1,088 privies. Six pail closets were substituted for old privies. The progress of conversion is slow. Wherever they are objectionable on account of situation, or are dilapidated or specially offensive, steps are advised for their conversion to pail closets.

*Housing.*—In the agricultural area the housing conditions are on the whole fair. In the industrial area of Donnington Wood there are many unsatisfactory houses. The Lilleshall Mining and Manufacturing Company have done much in recent years to improve the sanitary conditions of the property.

*Housing Regulations.*—The Sanitary Inspector is the Officer to make inspections, and the Clerk the Officer to keep the records. Notice is sent by the Inspector to the occupier of the intended inspection. A large number of the houses have been scheduled for inspection. In Donnington Wood some 56 houses were scheduled, and good progress has been made in dealing with them.

"Work of repair and improvement is also proceeding on an estate at Church Aston. The Inspector reports that out of 40 houses, showing a total of 227 defects, 65 defective conditions had been remedied up to the end of the year and that further action is in prospect."

*Permissive Powers.*—The Public Health Acts Amendment Acts, 1890 and 1907, and the Infectious Disease (Prevention) Act, 1890, are not adopted in the District.

"The adoption of Building By-laws is under consideration by the Council. I have recommended their adoption in order that the essentials of sanitation in new houses and their surroundings may be secured by due supervision."

*Slaughter-houses.*—There are no By-laws and no register. There are 3 slaughter-houses in the District; visited frequently and occasionally at times of slaughtering. No tuberculous carcases were found.

*Dairies, Cowsheds, and Milkshops.*—Model Regulations are in force. There is no veterinary inspection of milch cows.

## OAKENGATES (Urban).

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	.. 2,329
<i>Population</i>	at 1911 Census	..	.. 11,744
<i>Number of inhabited houses</i>	"	..	.. 2,466
<i>Number of persons per house</i>	"	..	.. 4.7

### *General Character of the District.*

"The District was formed in 1898 out of the adjacent parts of three neighbouring Rural Districts, owing to the difficulty in securing anything like efficient Sanitary Administration.

"It is largely an industrial one, due to the extensive ironworks and one or two coalmines in the neighbourhood. It is naturally hilly in contour, and has scattered over the south and east a number of large pit mounds. These are so extensive that in this neighbourhood very little land suitable for building exists.

"The surface levels vary considerably, in the south-east where the coal measures rise up it reaches nearly 600 feet O.D., and in the north, which is on the Shropshire plain, it sinks to about 200 feet O.D., and overlies the Bunter beds of New Red Sandstone covered with drift. The District covers an area of 2,329 acres, and the houses are scattered about it, making the connecting of them with sewers and water mains difficult and costly."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	11.3	.34	.34	.17	1.60	1.01	.59	76	26.2

*Infantile Mortality.*—The lowness of the infantile mortality rate is attributed to the absence of diarrhoea, and emphasises the importance of adopting every means of preventing this disease which is so fatal to children.

*Infectious Disease.*—Seventeen cases of scarlet fever, 3 of diphtheria, 2 of erysipelas, 1 of poliomyelitis, and 15 of pulmonary tuberculosis were notified. *Scarlet Fever.*—The Disease affected most parts of the District and was not apparently spread by school attendance. Want of proper isolation was noted in most cases. "The frequency with which a visit to the Picture Palaces immediately preceded the outbreak of the disease in a family make one regard these places as often responsible for these small epidemics." *Diphtheria.*—A rapidly fatal case occurred at a house at which, during the previous week, a drain had been blocked and had been taken up.

*Phthisis.*—The cases were visited and handbills and disinfectants supplied. Four of the cases were treated at the Sanatorium and some others at the Salop Infirmary. "The constant supervision of these cases of phthisis by the Medical Officer of Health is an impossibility, and the suggestion of the County Medical Officer that the District Council should have the services of the Nurse attached to the Tuberculosis Dispensary for this purpose, on payment of a contribution to her salary, is one that I heartily recommend to the Council. Unless the scheme for attacking this disease is complete in detail, the result will be disappointing."

*Water Supply* is from two wells at Hilton Bank, three miles outside the District. The quality is excellent and the supply constant. The consumption per head is only about 9 gallons. There were for a short time a few complaints of want of pressure in the higher parts of the District. At the end of 1911, 226 houses were not connected. By the end of 1912, these were reduced to 180, and since then 30 more have been connected.

*House Accommodation*.—Seventy houses were inspected under the Housing and Town Planning Act. Seventeen houses were represented as unfit for habitation and 7 were actually closed, 5 being afterwards made fit for habitation. In the other 10 an extension of time was allowed to enable the tenants to get other houses. “The condition of a large number of cottages calls for immediate attention, and the Council, I think, will require to exert pressure on owners to do the repairs more rapidly.” A certain proportion of the cottages are hardly worth the cost of repairs. More building, either by the Council or by private enterprise, is essential. The increase of the population is about 100 per annum, whereas only 8 houses were built. More houses are therefore required for the natural increase and for replacing houses which are closed. “The dearth of houses in the District is one of the chief causes contributing to the bad housing conditions in the District.”

*Sewerage, Drainage, and Excrement Disposal*.—When the sewerage scheme is completed, a strong effort to reduce the number of privies and pan closets should be made. There were 18 conversions of privies into water-closets and 25 into pan-closets during the year. There are now 300 water-closets in the District, privies and pan-closets being five times as numerous.

*House Refuse*.—Sixty ash pits were converted into galvanised pans and boxes during the year. The abolition of the old open ash pit is urged.

*Inspection of Meat and Slaughter-houses*.—The slaughter-houses have all been visited and reported on during the year. One has been abolished and others have had defects remedied. The meat is carefully watched but there is no systematic inspection.

*Cowsheds, Dairies, and Milkshops*.—They have been reported on and most of them improved. There are still 7 which are defective, although frequent notices have been served. Complaints of dirt in milk have been received and will not cease until some of the premises have been improved.

*Factories and Workshops*.—There are 20 factories and 86 workshops in the District. They have been visited regularly. Lack of cleanliness and overcrowding have been the chief defects found.

*Permissive Powers*.—The Public Health Acts Amendment Acts of 1890 and 1907 have, in the parts applicable to the District, been adopted. There are *by-laws* in relation to New Streets and Buildings, Slaughter-houses, and Dairies and Cowsheds.

## OSWESTRY (Urban).

*Medical Officer of Health* .. R. DE LA POER BERESFORD, B.A., M.D.

<i>Area in Acres</i> ..	..	..	..	..	..	..	1,887
<i>Population</i>		<i>at 1911 Census</i>		..	..	..	9,991
<i>Number of inhabited houses</i>		"		..	..	..	2,320
<i>Number of persons per house</i>		"		..	..	..	4.3

### *General Character of the District.*

" Oswestry is situated on land sloping to the south and east, at an elevation of over 400 feet above sea level. Subsoil, gravel, marl and clay in patches. Two streams at least run through it, but neither are used for domestic purposes. There are many wells in Oswestry, the larger number unused, some furnishing very fine but hard water. The thorough drainage of the town, the gradual destruction of ancient sources of contamination, the paving of the yards, and the daily removal of refuse, all tend to purify and dry the subsoil, and so make the water in the wells better."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	13.9	.10	1.60	.40	1.40	.60	.50	97	18.6

*Infectious Disease.*—Twenty-four cases of diphtheria, 10 of scarlet fever, 5 of erysipelas, and 2½ of pulmonary tuberculosis were notified. *Diphtheria* has practically disappeared. *Scarlet Fever* was attributed to introduction from the mining district beyond the County. The cases of *pulmonary tuberculosis* have probably not all been notified yet.

The disinfection of rooms is carried out by formalin in vapour and spray. The purchase of a disinfector is advised.

*Water Supply* has been good and abundant during the year. It is frequently examined chemically and microscopically. Improvements are suggested with regard to the pipe track, the storage reservoir and filtration.

The schools have all been well looked after during the year. The system of medical inspection is excellent, but cases found are not followed up, the parents being too poor or disinclined to seek medical or other help.

*Milk Supply.*—“Our Veterinary Inspector visits and reports every six months on the health of every cow whose milk is brought into the town.”

Milk is also examined for deposit, and improvement in this respect is noted. Dairies and cowsheds in the borough are frequently visited and on the whole kept clean and well attended to.

*Slaughter-houses and Bakehouses* are regularly inspected and are in good order.

*House Accommodation.*—There is no scarcity of accommodation. Considerable work has been done under the Housing and Town Planning Act.

The *Lodging Houses* are kept fairly clean, and the principal one has had new sanitary accommodation provided.

## OSWESTRY (Rural.)

<i>Medical Officer of Health</i>	..	R. DE LA P. BERESFORD, B.A., M.D.
<i>Area in Acres</i>	..	.. 60,366
<i>Population</i>	<i>at 1911 Census</i>	.. 15,443
<i>Number of inhabited houses</i>	..	.. 3,450
<i>Number of persons per house</i>	..	.. 4.5

### *General Character of the District.*

"Roughly speaking, the District, which extends over 62,000 acres, is greatly diversified in its physical features, contour, and subsoil. It slopes from very high ground in the north and west towards the Shropshire plain. It is bounded on the north side by the Ceiriog, a tributary of the Dee, on the south by the Vyrnwy and the Tanat tributaries of the Severn, and by the latter river itself, a line passing through the northern parts of the District divides the watersheds of the Dee and the Severn. With the exception of the St. Martin's portion, the District may be described as agricultural. In St. Martin's the adjoining collieries give employment to a very large number of men, who, for want of sufficient accommodation nearer their work, cross the borders of our District, some even finding their way into the town of Oswestry. Some very good new houses have lately been erected on Chirk Bank close by. Towards the south and west of the District are to be found several large limestone quarries, and many men are engaged in the manufacture of lime and dolomite. The cottages in this part of the District, though old, and in some cases overcrowded, seem healthy, situated, as they often are, on rock and amidst healthy surroundings."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	13.7	.32	1.23	.13	.71	.97	1.48	97	21.9

*Infectious Disease.*—Seventy cases of scarlet fever, 3 of diphtheria, 4 of erysipelas, 1 of enteric fever, and 24 of phthisis were notified. Fifty-eight of the 70 cases of *scarlet fever* occurred in St. Martin's, and many originated in an adjoining District. "Carriers" amongst adults were a factor in the spread of the disease. The case of *enteric fever* was that of a child two years old, at an isolated farm. No bacteriological test was applied.

*Disinfection* is carried out by spraying with formaldehyde and fumigation.

*Water Supply.*—There are seven public supplies furnishing excellent and abundant water. The Weston Rhyn supply has about 14 miles of mains and is now worked at an annual profit. Gobowen and Whittington are supplied from the Liverpool mains. This supply involved the laying of six miles of pipes. The other supplies are at Trefonen, Pant, Nantmawr, and Sweeney. Ifton Heath is supplied by Lord Trevor and Selattyn by Lord Harlech. Both are excellent waters. The covering of dip wells and the erection of pumps is being proceeded with.

*River Pollution.*—There is little pollution of streams in the District. The new sewerage works at Oswestry and Weston Rhyn are now furnishing a satisfactory effluent.

*Scavenging.*—With the exception of Morda Road houses, there is no organised system of scavenging. "The provision of such for the populated villages, or even a dumping ground for rubbish, would be a boon."

The sanitary condition of the *Schools* is now fairly satisfactory.

The *Town Planning Act* is being carried out slowly but surely.

"The new *Tuberculosis Regulations* . . . . compel me to visit and report every case notified in the District."

*Dairies, Cowsheds, and Milkshops.*—The premises are kept clean. There are some milksellers not on the register.

There are no *lodging houses* in the District.

There are 12 *slaughter-houses*.

*Factories, Workshops, and Bakehouses* have been regularly inspected and found clean with one exception, which is being attended to.

## SHIFNAL (Rural.)

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	.. 45,377
<i>Population</i>	at 1911 Census	..	.. 8,953
<i>Number of inhabited houses</i>	,,	..	.. 2,042
<i>Number of persons per house</i>	,,	..	.. 4.4

### General Character of the District.

"It has an area of 45,380 acres; two parishes and a part of a third situated in the County of Stafford are included in the district for Sanitary purposes. The population is small and for the most part thinly scattered with an average density of one person to five acres. There are sixteen parishes, all of them, excluding portions of Shifnal and Albrighton, being strictly Rural and agricultural.

"It overlies a succession of new Red Sandstone series with coal measures on the extreme western boundary.

"Shifnal is the market town and Albrighton a large residential village.

"There are one or two coalpits in the District (most of the workers in them live over the border in the adjoining parishes), a wire and chemical works, otherwise the workers are chiefly engaged in agriculture. A considerable number of large residential estates are scattered through the District."

"The Public Institutions in the District include the Workhouse, a Cottage Hospital and a joint Isolation Hospital for small-pox."

## Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births. 1912	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	14.1	.11	.45	.89	1.00	.33	1.12	74	21.9

"The death-rate (12.9) is somewhat high for such a District, and is probably to some extent accounted for by the large proportion of elderly people resident in the area."

*Infectious Disease.*—Five cases of scarlet fever, 2 of erysipelas, 1 of enteric fever, and 8 of phthisis were notified. The *scarlet fever* cases were unconnected. The *enteric fever* was imported.

"Acute Poliomyelitis, Cerebro-Spinal Fever and Ophthalmia Neonatorum were made notifiable during the year by the Council, but no case was notified, although one death was attributed to Poliomyelitis."

*Disinfection* was carried out by the Sanitary Inspector by means of formalin, and meets the needs of the District. Disinfectants are supplied.

*Phthisis.*—All cases were visited, inquiries made and instructions given. Rooms were disinfected after death.

House accommodation is generally satisfactory. No closing order was made. Twenty-nine houses were reported on under the Housing and Town Planning Act, the defects found being in regard to closet accommodation, water supply, drainage, dampness and want of yard paving and drainage.

*Water Supply.*—"Certain houses at Redhill were reported on for having no supply at all; an old well has been cleaned out and the pump put in repair to supply them. It is to be regretted that they cannot be connected with the Duke of Sutherland's main, which supplies Oakengates."

*Sewerage and Drainage.*—The drains of 40 houses have been re-constructed or amended. There has been considerable improvement in recent years. The Shifnal sewage works have been satisfactory during the year. Improvement is required with regard to the disposal of the sludge. The plans for the sewerage of Albrighton have been approved by the Local Government Board.

*Excrement Disposal.*—Thirty-eight privies have been converted into water-closets, mostly in Shifnal. At Albrighton this work has been postponed until the sewage works and new sewers are completed.

*Cowsheds, Dairies, and Milkshops.*—There are 49 on the register; repeatedly inspected. Their structure is mostly satisfactory, but there are repeated complaints as to want of cleanliness. "The Council are responsible not only for the milk consumed in their District, but also for the large quantities, which are imported to the neighbouring industrial towns, where infantile diarrhoea is often a serious factor in the death-returns."

*Slaughter-houses* are carefully supervised and the meat inspected frequently. Three sheep were seized and destroyed and information given which resulted in a conviction and a fine of £20 in a neighbouring town.

*Factories and Workshops*.—There are 4 factories and 35 workshops on the register; 156 visits were paid. There is very little to complain of.

*Bakehouses* are kept clean but their size and situation often leave much to be desired.

The Infectious Diseases Act and parts of the 1890 Amendment Act are in force. There are By-laws for Cowsheds, Dairies, and Milkshops, and also for New Buildings, Slaughter-houses, Lodging Houses and Nuisances.

"The question of establishing Tuberculosis Dispensaries in the County has been under the consideration of the Council, owing to the report of the County Medical Officer, and the suggestion that the nurse, attached to the one which will serve your District, should be employed to visit the cases of phthisis and keep them under observation, is one that should receive your consideration. It appears to overcome a serious difficulty, for it is impossible for the Medical Officer of Health to pay these periodical visits."

## SHREWSBURY (Urban).

<i>Medical Officer of Health</i>	..	..	THOMAS ORR, M.D., M.Sc.
<i>Area in Acres</i>	..	..	3,525
<i>Population</i>	at 1911 Census	..	29,389
<i>Number of inhabited houses</i>	"	..	6,612
<i>Number of persons per house</i>	"	..	4.4

### *Physical Features and General Character of the District.*

"The Borough comprises 3,470 acres, forming an area nearly equal in length and breadth, and roughly quadrangular. This area lies in the Valley of the Severn, having a gradual fall to the river, and varying in elevation from 150 feet to 260 feet above sea level. The geological formation is varied, the Permian Red Sandstone occurring in a band across the centre, with the Bunter beds of the New Red Sandstone to the north, and the coal measures to the south. The actual subsoil is, however, mainly *river drift*, of varying and generally considerable thickness. In places stiff clay, but generally sandy and dry in the upper part, with clay under-lying at greater or less depth. The contour offers good natural drainage to the Severn, which, owing to its devious course, flows over a length of some eight miles either through or along the borders of the District.

"The climate of Shrewsbury is mild and possesses the characteristics of a valley climate. The open nature of the valley and the varied contours of the town, together with the course and movement of the Severn through and around the town, prevent stagnation of the air; and river fogs, even in the low lying parts of the town, are neither so frequent nor so common as might be expected.

"The town lies within the rain shadow of the hills of Wales and the border country, and the rainfall is moderate.

"The rainfall for the year, records of which were kindly supplied by Dr. Gepp, was 28.02 inches, which exceeded by 2.04 inches that of the previous year. The driest month was April, with a rainfall of .165, while the wettest month of the year was August, with a rainfall of 5.57 inches. The months of June, July, and August gave the large total of 11.38 inches. This large rainfall during these months was in all probability responsible for the low death-rate from diarrhoea, a disease which is favoured by a warm, dry summer.

"The old town of Shrewsbury stands on two hills of generally moderate ascent, but steep in parts. It is nearly surrounded by the river, which here makes a horse-shoe curve some two miles round, with a width across the neck of about 400 yards.

"The enclosed part is most densely built on. Of the various suburbs across the river, Frankwell forms an old settlement on the north-west, with modern extensions chiefly of villa residences along the main roads radiating from it; Kingsland is a modern residential suburb to the south-west; Coleham an old settlement to the south-east, with Belle Vue, a modern extension adjoining; Abbey Foregate, old near the river, modern and residential further out, lies to the east.

"To the north-east, on the low lying ground outside the neck of the peninsula is the considerable district of Castle Fields, built over for the most part some fifty or sixty years ago, and forming an artisan residential quarter.

"Shrewsbury is a market and residential town, an important railway centre, and the natural centre for the trade of a large agricultural district, a large number of main roads converging on the town. Industrial works are neither numerous nor extensive for a town of the size of Shrewsbury. There are large maltings, three breweries, a tanyard, an agricultural implement works, a railway-carriage and wagon works, an iron foundry, tobacco and cigar factory, gas works and electric light works."

### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuber-eulous Diseases.	Bron-chitis.	Pneumonia (all forms)	Cancer.		
1912	13.7	.24	1.08	.14	1.35	.64	.61	72	22.5

The infantile mortality rate shows a remarkable reduction compared with previous years. There were only 48 deaths of children under one year of age compared with 65 in the previous year, giving an infantile rate of 72 per 1000 births. The reduction is partly ascribed to the small number of deaths from diarrhoea. The infantile rate is 23 per 1000 less than that for the whole of England and Wales, and 27 per 1000 less than that for the 146 smaller towns. It was 16 per 1000 lower than any previous record for Shrewsbury.

*Notification of Births Act* has been in force since 1909. Nine per cent. of the cases were notified by doctors and 87 per cent. by midwives. Some of the cases were notified by both doctors and midwives.

*Health Visitor's Work*.—"The infant death-rates for the last three years are a striking testimony of the value of health visiting aided by the Notification of Births Act. A health visitor was appointed on the 1st January, 1909, when the notification of Births Act came into force in the Borough."

"In 1910 the infant death-rate of Shrewsbury was 18 less than that for England and Wales, in 1911 it was 29 less, and in 1912 it was 23 less. Thus in the last three years the infant death-rate has been on an average 23 below that of England and Wales."

"Of the 641 living births notified, that is, notified in any manner as represented in the above table, first visits were made in 596, or 93 per cent., while second visits were made in 581 out of 641 living births, or 90 per cent. Most of these infants visited are visited every three months, some are visited once a month, and where necessary, some are visited weekly, especially where the child is poorly or where the person in charge of an infant is apt to be careless in looking after the child."

"Not only have the visits an effect on the feeding of the infants but they influence, to a very large extent, the feeding of the older children and the general management and cleanliness of the home. It is indeed surprising to see the effect of the visits of the health visitors on the houses of the working classes. The health visitors treat the poor people with sympathy, and in return the people treat them with respect and act upon their advice with confidence."

At the first visit of the health visitor, 84.1 per cent. of the children were found to be breast-fed, 2.4 per cent. to be breast-and-bottle-fed, and 13.5 to be entirely artificially fed. At a later visit it was found that the number of children that remained entirely breast-fed was 66.6 per cent.

*Infectious Disease.*—"The important points to be noted as regards Shrewsbury are the absence of deaths from enteric fever, the low whooping cough death-rate, the high diphtheria death-rate, and the very low diarrhoea death-rate."

Twenty cases of scarlet fever, 43 of diphtheria, 10 of erysipelas, 1 of puerperal fever, and 1 of ophthalmia neonatorum were notified. *Scarlet Fever.*—Eighty-five per cent. of the cases were removed to hospital. Two cases were infected by a patient who after leaving the hospital developed a nasal discharge. The disease was generally of a mild type. *Diphtheria.*—Generally speaking, no relationship could be found between the cases. The control of the disease was rendered difficult owing to the occurrence of non-diphtheritic sore throat in children. In the early part of the year, the disease was mild, but later on it was of a severe type. Of the 7 deaths with one exception, a doctor was not called in until three or four days had elapsed. The weekly return of sore throats by school teachers was found of great assistance, these being all examined bacteriologically if no doctor was in attendance. In this way several cases of diphtheria were detected. The cases nursed at home are not liberated until two successive negative swabs have been obtained. The provision of antitoxin by the Council is made use of to a fairly large extent.

*Enteric Fever.*—No cases were notified during the year or in the previous year.

*Tuberculosis.*—Sixty-eight cases of phthisis were notified. There were 32 deaths, giving a death-rate of 1.08. The death-rate from all forms of tuberculosis was 1.21.

"The Health Visitor (Miss Jesper), appointed in the beginning of 1912 to visit cases of phthisis, made 619 visits, giving leaflets of instructions, teaching the patients to take their temperature when required by the medical practitioner in attendance, and generally advising them as to the care of themselves and the prevention of infection. Sputum flasks were supplied by the Public Health Department in 29 cases."

Two open air shelters were provided by the Council.

With reference to the County scheme the report says:—"In this way the machinery for dealing with tuberculosis of the lungs will be augmented to the extent of a dispensary and additional means for the treatment and education of advanced cases of the disease. These measures are bound to have a very far reaching effect on the control of the disease."

*Measles* was prevalent during the last quarter of the year, 646 cases being notified from the schools. There were 10 deaths, giving a rate of .33 per thousand.

"The small number of deaths compared with the large number of cases of the disease may be attributed to the supervision of the cases by the School Nurse and Health Visitors. All the cases notified by the school teachers were visited, and instructions were given to the parents regarding the means of preventing complications, by which measles becomes fatal, and of preventing infection."

*Diarrhoea*.—There were only 4 deaths, the death-rate being remarkably low, viz., 4.49 per thousand births. This rate is just a little more than half that of England and Wales.

"The diarrhoea death-rate for 1912 is the lowest rate yet recorded, being .03 below that for 1910, which was the previous lowest. This low rate is certainly due to some extent to the sanitary improvements accomplished during the last few years and to the supervision of the infants and the education of the mothers by the Health Visitors. Shrewsbury is essentially a water-closet town, and this materially helps in preventing enteric fever and diarrhoea, which are apt to be prevalent where there are privy middens."

*Isolation Hospital*.—Twenty-one cases of scarlet fever and 31 of diphtheria were admitted during the year. There was 1 death from scarlet fever and 3 from diphtheria, the latter being due to cardiac failure. Tracheotomy was performed on 4 cases of diphtheria. During residence in the hospital a bacteriological examination was made of the diphtheria cases twice a week and the patients were not discharged until three successive negative swabs had been obtained.

*Bacteriological Examinations*.—Besides the examination at the Birmingham University, 12 examinations of sputum were made for tubercle bacilli and 524 swabs for diphtheria bacilli in the Borough Laboratory. These were in connection with school children or hospital patients.

*Disinfection*.—The provision of a steam disinfecter is urged, and it is suggested that it might be provided with advantage in connection with the refuse destructor.

"At present, disinfection of bedding and clothing is done in an unsatisfactory manner by spraying, which only disinfects the surface and not the interior of the material. If the control of infectious disease is to be effective all clothing and bedding must be thoroughly disinfected by means of steam."

The disinfecter also would be of great use in dealing with verminous children and children suffering from scabies.

*Housing*.—Since the reports for 1910 and 1911, the urgency of providing better houses has become intensified, many houses having become overcrowded. Twenty-two houses were represented for closure during the year and 10 were closed. Six of these closures were withdrawn, leaving 4 which cannot be put in order. The scarcity of houses has greatly impeded the action of the Sanitary Authority. "The Council proposes to buy a site consisting of 5 $\frac{1}{4}$  acres situated in the Dithcrlington Ward, and to erect 63 houses, at a cost, including the land, of £12,000. Six houses will have two bedrooms, kitchen, scullery with bath, and W.C., and will be let at 3/9 per week, including rates, while 57 houses will have the same accommodation, with an additional bedroom, to be let at 4/6 per week, including rates. The site is about a mile from the centre of the town and stands high with a natural slope facilitating drainage. An application has been made to the Local Government Board for sanction for a loan for this purpose and, should this be obtained, one of the most important measures for the improved health of the inhabitants, yet undertaken by the Council, will be accomplished."

During the year a thorough survey was made of 479 houses under the Housing and Town Planning Act and 423 notices were served. Eighty, or 16 per cent. of the houses were back to back and in 208, defective ventilation and lighting were found. Forty-three of the houses were found to be overcrowded.

"A consideration of the defects in the houses, which have just been noted, gives one a general idea of the low standard of the houses for the working classes in the Borough, while their high rents give ample evidence of the scarcity—an abundance of good houses having a tendency to lower the rents."

*Water Supply.*—"The well-water, or drinking water, which is distributed by means of standpipes, was bacteriologically examined repeatedly during the year, but was in all cases found to have no bacteria present in 1 c.c., and no intestinal organisms in a litre, indicating its great purity and freedom from contamination.

"With respect to the river water the filters have been unfailing in their efficiency as regards sediment, and the treatment by means of "Chloros" in the proportion of 1 part per two million parts of water, has ensured intestinal organisms being absent from the water in quantities up to 500 c.c. Thus the river water, although not recommended as a potable water, is not likely to be dangerous if drunk by accident. This is borne out by the fact that no cases of enteric fever have occurred since the filters were installed in 1909."

*Milk Supply: Dairies, Cowsheds, and Milkshops.*—There are 62 cowkeepers and milk-sellers on the register, and of these 27 have premises outside the district. There are 19 cowsheds and 16 dairies and milkshops in the Borough. With the exception of 2, all the cowsheds are now in good condition. These 2 are being dealt with. The dairies and milkshops in the Borough have been much improved.

Twenty-two samples of milk were examined bacteriologically and one was found to contain tubercle bacilli. Action was taken with regard to the suspected cows, but they were sold and could not be traced.

*Dirt in Milk.*—All the samples examined for tubercle, were also examined for dirt, and where in an excessive quantity, the farmer was warned.

*Meat and Food Inspection.—Public Abattoir.*—Thirteen hundred and seventy-five beasts, 827 calves, 8,451 sheep and lambs, and 3,586 pigs were slaughtered. Nine beasts, 1 calf and 30 pigs were affected with tuberculosis. Of these, 5 beasts, 1 calf, and 20 pigs were entirely condemned and in the remainder, the affected parts.

"In addition, the lungs of 11 beasts and 9 livers were destroyed on account of hydatids; 13 livers on account of abscesses, 11 on account of flukes; 3 kidneys were destroyed on account of inflammation, 1 stomach also on account of inflammation, and the intestines of three animals on account of parasitic nodules in the walls. There were also surrendered and destroyed 89 lbs. of bruised beef."

Seven sheep, 4 calves and 4 pigs, also the lungs of 16 pigs and the livers of 11 pigs were condemned and destroyed for other conditions than tuberculosis.

*Private Slaughter-houses.*—There are only 5 private slaughter-houses in the Borough. 348 visits were paid for the purpose of meat inspection. The approximate number of animals slaughtered in these places were 570 beasts, 4,600 sheep and lambs, 312 calves and 300 pigs. "There were surrendered as unfit for human food the carcase of a heifer affected with tuberculosis, 40 lbs. bruised beef, 2 beasts' livers, 2 beasts' lungs, the lungs of 7 sheep and the livers of 2 sheep."

*Food and Drugs Act.*—Eighty-eight "formal" and 7 "informal" samples were taken. Seven proved to be adulterated. Proceedings were taken in 6 cases. Of these, 2 were dismissed, one was dismissed on payment of 27s. costs, one was fined the amount of the costs, 18s. 6d., and 2 were fined £2 including costs. The insufficiency of these fines as a deterrent of illicit trading is dealt with at some length.

*Drainage and Sewerage.*—A large amount of work has been done during the year in the re-drainage of houses, chiefly in connection with the housing survey. The whole of the Borough, with the exception of two areas of 7 and 15 houses respectively, which cannot be drained without much difficulty, is provided with sewers. With the exception of these areas and an occasional house in the rural parts, every house has a water-closet.

*Sewage Disposal Works.*—No change has taken place in the treatment of sewage.

*Pollution of Rivers and Streams.*—Sewage from 31 houses draining into the Severn near the Welsh Bridge has been removed. This had previously escaped observation. The sewage from a house in Abbey Foregate has been removed from the Rea Brook, and that from the Laundry, reported last year, has been dealt with by a small purification plant.

*Collection and Disposal of House Refuse.*—A suggestion is made that By-laws be framed under section 26 of the Public Health Acts Amendment Act, 1890, in order that proper receptacles may be enforced and the occupiers required to put them in convenient places for scavenging.

Considerable improvement has been made with regard to covered carts.

"The tips during the year seem to have been carefully managed, judicious coverings of earth having been put over the surface of the refuse, while the areas of tipping have been much restricted. With the greatest care, however, nuisance in connexion with tips cannot be prevented and it is incumbent upon the Council to abolish refuse tips and provide a suitable refuse destructor. The Improvement Committee have been considering very thoroughly the question of the erection of a destructor, the site for which is difficult to settle, a central situation being desirable to save expense in the collection of the refuse."

*Common Lodging Houses* are under the By-laws. It is urged that the Inspector of Nuisances should be the executive officer. An improvement in the management of these places has been evident during the year, and drastic action has been taken under Section 17 of the Housing and Town Planning Act with regard to their sanitary condition.

*Houses Let in Lodgings.*—The adoption of By-laws is recommended.

*Offensive Trades.*—Five places are registered. They have been regularly inspected and are well conducted.

*Fried Fish Shops.*—There are 8 fried fish shops; frequently visited. Steps are being taken to have fried fish shops declared an offensive trade by an Order under Section 51 of the Public Health Acts Amendment Act, 1907. The result would be that these shops could only be opened by consent of the Council.

*Canal Boats.*—Twenty-six canal boats were inspected during the year and were found in accordance with the Acts and Regulations.

*Adoptive Acts.*—The Public Health Acts Amendment Act, 1907, came into force during the year. The Public Health Acts Amendment Act, 1890, and the Infectious Disease Prevention Act, 1890, are in force.

*School Medical Inspection.*—The Medical Officer of Health is the School Medical Officer, and the Health Visitor gives up two-thirds of her time to school work. Children suffering from ringworm, scabies and sore throat attended at the Health Offices for examination by the School Medical Officer.

*Factory and Workshop Acts.*—Four hundred and twenty-five inspections were made and 102 written notices were served. *Bakehouses* are in good order as a result of a thorough survey in 1911. Section 22 of the Public Health Acts Amendment Act, 1890, is in force, and the sanitary accommodation complies with the Order of 1903.

### TEME (Rural).

*Medical Officer of Health* .. .. JOHN H. K. GRIFFITHS, M.B.

<i>Area in Acres</i>	..	..	..	..	..	..	23,090
<i>Population</i>		<i>at 1911 Census</i>		..	..	..	1,644
<i>Number of inhabited houses</i>		"		..	..	..	382
<i>Number of persons per house</i>		"		..	..	..	4.3

#### General Character of the District.

"The District is mountainous and purely agricultural. The majority of the inhabitants are engaged in agriculture."

#### Statistics.

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	6.1	.0	.61	.0	.61	.61	.61	0	29.8

*Infectious Disease.*—Only two cases of *scarlet fever* were notified, neither being removed to the isolation hospital. Bucknell school was closed in consequence of the outbreak.

*Phthisis.*—Two cases were notified—one advanced and fatal, the house being disinfected after death, and the other was removed to the sanatorium.

There is a great scarcity of midwives in the district.

*Water Supply.*—The supply to Bucknell is still unsettled. The majority of the houses in the district are supplied from shallow wells or springs.

*Closet Accommodation* is generally by means of privies.

The arrangement for the notification of disease from the schools has worked satisfactorily.

*House Accommodation.*—This is adequate and houses are in an average state of repair. One hundred and eleven inspections have been made under the Housing and Town Planning Act. One closing order has been made, and in 5 houses defects were remedied without closing orders.

## WELLINGTON (Urban).

<i>Medical Officer of Health</i>	..	..	A. E. WHITE, M.B., D.P.H.
<i>Area in Acres</i>	..	..	700
<i>Population</i>	<i>at 1911 Census</i>		7,820
<i>Number of inhabited houses</i>	..	..	1,721
<i>Number of persons per house</i>	..	..	4.5

### *General Character of the District.*

" Wellington is the centre of a large agricultural district, and serves as the market town for it and the neighbouring mining and manufacturing district. The principal industries are brewing, malting, manufacture of furniture and all kinds of woodwork and agricultural implements. In addition several large and well-equipped boarding schools have grown up and added materially to its prosperity. In the summer numerous visitors pass through the town on their way to spend a day on the Wrekin.

" The town has an area of 684 acres. The surface levels vary a good deal, and for the most part drainage gradients are satisfactory. The subsoil is clay and gravel, overlaying the lower layers of the New Red Sandstone. The water supply is under the control of the Council who have water rights over some of the surrounding rural area besides. The sewers are for the most part modern, and the outfall is about half a mile from the border of the district.

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth rate
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	12.6	.13	1.01	.51	.89	.76	.63	80	23.

Twelve per cent. of the deaths were due to tubercle in some form.

Of the infant deaths, 10 were due to conditions existing at birth, and point to the need of greater care of the mother before the birth of the child.

*Infectious Disease.*—Two cases of scarlet fever, 9 of diphtheria, 6 of erysipelas, 1 of enteric fever, 3 of puerperal fever, and 18 of phthisis were notified. *Scarlet Fever.*—The two cases were of a doubtful nature. *Diphtheria.*—Six of the cases occurred amongst policemen and their families. Several of the cases were infectious for a long period. The case of *enteric fever* was imported.

*Phthisis.*—“ The suggestion of the County Medical Officer, in his report on the establishment of Tuberculosis Dispensaries for the County, that the District Council should have the service of the nurse attached to the Dispensary for visiting the cases of Tuberculosis quarterly or payment of a contribution to her salary, is one that I heartily recommend.”

*House Accommodation.*—“During the year a large amount of work has been done in inspecting houses under the Housing and Town Planning Act. The reports on 97 came before the Committee. Sixteen of them were considered unfit for habitation, and closing orders made by the Council; none of them have been put in repair and they are now due for demolition orders.”

“The chief defects found in the others were defective drainage and closet accommodation, with dampness of walls and floors, and defective paving and drainage of yards, want of troughing and defective floors, stairs, and windows. Difficulty is met with in getting the repairs executed in a thorough manner in many cases, and this adds considerably to the work of the Inspector and Committee.”

“Five cottages were demolished for street improvement, and thirteen others which had been reported for their dilapidated and insanitary condition have been purchased to provide a site for a new Post Office. No house of the cottage type was built during the year, so that the closures that have taken place, and are about to be carried out, certainly make the building of more cottages an urgent necessity. The Council have already had this under consideration, and I trust that the number of houses closed will be kept in mind when they consider the extent of their scheme.”

*Water Supply.*—There has been no restriction of the supply during the year. About six million gallons were pumped from the borehole. Vegetable growth has caused some difficulty in filtering the Wrekin water. This difficulty diminished as the cold weather set in.

*Sewerage and Drainage.*—The sewage outfall works are now turning out a very satisfactory effluent. “The storm overflow at Spring Hill has been the source of complaint, and it has been decided to do away with it and construct a further line of pipes to the outfall works to carry away the storm water. Here it will be received into a tank to allow the solid matter to settle, and passed over the storm water bed into the stream.”

*Removal of House Refuse.*—The scavenging is satisfactorily carried out by the Sanitary Authority. The substitution of galvanised ashbins for ashpits is being gradually made through the town.

*Excrement Disposal.*—Thirty-four privies were converted to water-closets during the year. There remain now 265. Many that still exist should be dealt with as a nuisance.

*Factories and Workshops Act.*—Fifty-nine visits of inspection have been paid under this Act. *Bakehouses* are clean and have been improved.

*Cowsheds and Dairies.*—There are nine cowsheds—maintained in a cleanly condition. The provision of a bowl and towels for cleaning the hands of the milksellers and for cleaning the teats of the cows before milking, and also veterinary inspection of dairy cattle are advocated.

*Slaughter-houses*—They are in a fair condition and as a rule carefully looked after.

Meat coming from outside the district could best be dealt with by a County scheme of inspection.

## WELLINGTON (Rural).

<i>Medical Officer of Health</i>	..	..	W. T. HAWTHORN, M.R.C.S.
<i>Area in Acres</i>	..	..	.. 33,472
<i>Population</i>	..	at 1911 Census	.. .. .. 11,091
<i>Number of inhabited houses</i>	..	..	.. 2,433
<i>Number of persons per house</i>	..	..	.. 4.5

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	13.7	.36	.63	.45	1.17	1.44	.63	82	23.1

*Infectious Disease.*—Nine cases of scarlet fever, 5 of diphtheria, 7 of erysipelas, 1 of puerperal fever, 22 of pulmonary tuberculosis, and 65 of measles were notified. Two schools were closed on account of measles.

*Water Supply.*—“An attempt has been made by the Council to improve the water supply of the District.” Notices have been served on the owners of 185 houses in Hadley to connect up to the public water supply. In 88 instances they have been complied with and in the others they are receiving attention. The water supply to Red Lake and District is receiving consideration, and it is hoped that this area will shortly be supplied.

*Sewerage and Drainage.*—The sewerage scheme for Admaston is complete, and that for Hadley is working satisfactorily. “Nothing further has been done with regard to the drainage of Ketley, which in some instances is very unsanitary and should receive immediate attention.”

*Housing and Town Planning.*—Two hundred and six houses have been inspected and notices served with regard to 162, 101 of which have been complied with.

There are 33 *Milksellers* on the register, and 53 visits have been paid.

*Slaughter-houses*—15 on the register—75 visits.

*Factories and Workshops.*—There are 28 workshops and 10 bakehouses.

No *By-laws* are in force in the District, but their adoption is contemplated.

## WEM (Urban).

<i>Medical Officer of Health</i>	..	<i>JOHN DALLEWY, L.R.C.P., M.R.C.S.</i>
<i>Area in Acres</i>	..	.. .. .. 452
<i>Population</i>	<i>at 1911 Census</i>	.. .. .. 2,273
<i>Number of inhabited houses</i>	"	.. .. .. 509
<i>Number of persons per house</i>	"	.. .. .. 4.4

### *General Character of the District.*

" Wem Urban District comprises an area of 453 acres, and has a population estimated at 2,273.

" By Local Government Board Order dated April 1st, 1900, the ancient Civil Parish of Wem was divided into two parishes, Urban and Rural. Under provisions of the Local Government Act, 1894, by the same order, the Urban Parish was constituted an Urban District and the town is now governed by a District Council.

" The town of Wem is situated in the centre of an agricultural district, and is made up of a number of good houses, shops, cottages, and some Public Buildings.

" Very little in the way of manufacturing is done.

" There is a Brewery and a Tannery in the town.

" The ground is very flat.

" The town is paved, and is lighted with gas.

" The Union Workhouse is situated within the District.

" Two Cemeteries are in use, one on the Whitchurch road, about  $4\frac{1}{2}$  acres in extent, and a smaller one in Chapel Street, of about a quarter of an acre.

" Water supply and drainage are both provided."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.:		
1912	10.9	.88	.0	.0	1.76	.44	1.32	0	14.5

The birth-rate was very low, 14.5.

There were no deaths of infants under one year of age.

*Infectious Disease.*—Nine cases of scarlet fever, 1 of puerperal fever, and 1 of pulmonary tuberculosis were notified. The case of *pulmonary tuberculosis* was removed to the County Sanatorium.

*Water Supply* is abundant and of good quality. A new gas engine capable of pumping 6,000 gallons per hour has been installed.

*House Accommodation* is very good. The Sanitary Inspector is the officer to carry out the inspections under Section 17 of the Housing and Town Planning Act. The records are kept in books. The number of houses inspected was 110.

*Sewerage and Drainage.*—The sewage system continues to work well.

The removal and disposal of house refuse is undertaken by the Sanitary Authority.

The *Schools* are satisfactory as regards sanitary arrangements and water supply.

*Slaughter-houses*—7 on the register; inspected regularly and found satisfactory.

*Milk Supply*.—No regulations are in force. There are 13 cowkeepers on the register.

*Factories and Workshops* are inspected in accordance with the regulations.

*Bakehouses* are satisfactory.

*Common Lodging Houses*—2; inspected regularly and found satisfactory.

*By-laws* are in force with regard to New Streets and Buildings, Nuisances, Slaughter-houses, and Common Lodging Houses.

## WEM (Rural).

*Medical Officer of Health* .. JOHN DALLEWY, L.R.C.P., M.R.C.S.

<i>Area in Acres</i> ..	..	..	..	..	..	..	51,999
<i>Population</i>		<i>at 1911 Census</i>					8,373
<i>Number of inhabited houses</i>		"					1,940
<i>Number of persons per house</i>		"					4.3

### *General Character of the District.*

"Wem Rural District is composed of the parishes of Wem Rural, Broughton, Clive, Grinshill, Lee Brockhurst, Loppington, Moreton Corbet, Prees, Shawbury, Stanton-on-Hine-Heath, Weston and Wixhill, and Whixall.

"The total population is 8,373. There are 1,940 inhabited houses.

"The District is an agricultural one."

### *Statistics.*

Death-rates per 1000 population from

Period.	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.	Infant Death-rate per 1000 Births.	Birth-rate.
1912	14.8	.24	.60	.24	.96	.84	1.07	75	20.6

*Infectious Disease.*—Thirty-seven cases of scarlet fever and 2 of diphtheria were notified. Five cases of *scarlet fever* in one house at Northwood were very severe and of obscure type. The first two cases, father and son, proved fatal. Arrangements were made for nursing the other three.

*Diphtheria antitoxin* is supplied for preventive purposes.

*Phthisis.*—Sixteen cases were notified.

*Disinfection* is carried out by the Sanitary Inspector and when necessary the steam disinfecter is used.

*Hospital Accommodation.*—There is a small-pox hospital but there is no hospital for other infectious diseases.

*Water Supply.*—*Prees.*—Nothing has been done but plans are being considered. *Whixall.*—It is proposed to apply to the Local Government Board for a loan to carry out a scheme. *Tilley.*—An inquiry has been held for sanction to borrow £250 for works to supply this village from the Wem Urban mains.

*Housing Accommodation* is fairly good.

*Housing and Town Planning Act.*—One hundred and forty-one houses have been inspected and three closing orders made. The Inspector's reports are considered at each of the monthly Council meetings.

*Sewerage and Drainage.*—This is for individual houses and small groups of houses, and is, on the whole, satisfactory.

*Milk Supply.*—One hundred and twenty-eight cowkeepers and milk-sellers on the register.

*Factories and Workshops.*—61 on the register; all been inspected.

*Inspection of Meat and Foods* is not carried out by the Sanitary Authority.

## WENLOCK (Urban).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	.. 22,657
<i>Population</i>	..	at 1911 Census	.. .. 15,244
<i>Number of inhabited houses</i>	..	..	.. 3,548
<i>Number of persons per house</i>	..	..	.. 4.3

### *Physical Features and General Character of the District.*

" The District comprises 22,522 acres, exclusive of water, being the largest Borough in area in the country. This area is of very irregular outline, but is, roughly, some ten miles in greatest length, from north to south west, and has a mean breadth of some four miles, being narrowest where the Severn, traversing the District from west to east, makes a natural division, the part lying to the south of the river having three or four times the area of the northern part, though with less than half the population.

" The District is for the most part a table-land lying at an elevation of from 400 to 600 feet or more ; the Severn forming a deep cutting through this elevated land, its banks rising very steeply on either side from about 150 feet O.D. at the water level to the general height of about 500 feet O.D. The central and eastern part, nearly half the area, lies upon the coal measures. To the west the formation is the Wenlock and Ludlow beds of Silurian age, forming a considerable part of the southern division and extending also to a limited extent across the river in the northern division. Much of this ground lies in ridges with intervening valleys at a height of from 600 to 800 feet. At the southern extremity the old Red Sandstone occurs. The natural drainage is to the Severn, by small streams falling as a rule steeply into the river within the District, but the southern part of the southern area drains to the south by small streams which meet the Severn some distance outside the District.

" The District is in large part industrial, the chief industries being coal and iron mining, iron manufactures, and brick and tile works. There is also a large china factory. These industries are confined to the northern area together with a small part of the southern area near the river. The greater part of the southern area is entirely rural and agricultural, and thinly populated.

" For purposes of local administration the Borough is divided into four Wards, each having a separate Sanitary Committee acting as the Sanitary Authority. These wards, with their area, population, and general character are as follows :—

Ward.	Area in Acres.	Census Population 1901	Situation.	General Character.
Madeley .. ..	2797	8442	North-of Severn ..	Urban and Industrial Coal and Iron.
Broseley .. ..	1962	3916	South-of Severn ..	Urban and Industrial Brick and Tile.
Much Wenlock .. ..	8751	2210	South-of Severn ..	Agricultural.
Barrow .. ..	9012	1298	Both sides of Severn	Agricultural.

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	15.3	.13	1.05	.26	1.18	1.05	1.38	67	22.6

The population decreased by 622 in the last inter-censal period.

The infant mortality rate was only 67, and has been comparatively low in recent years. "But the District is one in which in my opinion a system of health visiting, in connection with the adoption of the Notification of Births Act by the County Council would be useful in instructing and advising mothers in the care and feeding of infants and in reducing infant mortality."

*Infectious Disease.*—Fifteen cases of scarlet fever, 6 of diphtheria, 6 of erysipelas and 1 of poliomyelitis were notified. The cases of *scarlet fever* were scattered outbreaks during the first six months and no direct association was traced.

Arrangements have been made for the free supply of antitoxin for use in poor persons.

Whooping cough and measles were prevalent and necessitated the closure of several schools.

*Phthisis.*—There were 30 notifications and 16 deaths. "The death-rate from phthisis in the Borough has shown no tendency to reduction in the past 12 years, and I have attributed the comparatively high rate to conditions of bad housing and of poverty, assisted to some extent by certain industries associated with dust."

The County Council's scheme is generally approved and the Council advised to make use of the nurse-inspector to be appointed in connection with the dispensary.

*Isolation Accommodation.*—There is an iron hospital for small-pox to accommodate 8 patients. The County Council have made an order for an isolation district including 4 Urban and 3 Rural Districts, "and the County Medical Officer's proposal was to include also that part of the Borough lying to the North of the Severn. The Borough, however, exercising its discretion under the Isolation Hospitals Acts, has decided not to be included in the scheme. I would point out that provision for isolation, both of ordinary infectious disease and of cases of advanced phthisis, is at least as necessary in the Borough as in the other Districts, and that inclusion in a large area for this purpose is the most economical way of making efficient provision. In my opinion the Borough would be well advised to join the scheme."

*Disinfection.*—The Sanitary Inspector in the great majority of cases sprays or fumigates infected rooms. Disinfectants are supplied. A steam disinfecter is recommended.

*Schools.*—Supervision of the schools is now under the County Medical Officer of Health and the inspection is carried out as before. "In my report to the Wenlock Education Authority for 1910 I drew attention to sanitary deficiencies at certain of the schools. So far as I am aware no steps have yet been taken to effect improvements."

*Water Supply.—Broseley and Madeley Joint Scheme.*—This supply is from a deep well and boring in the Bunter beds at Harrington. It is laid on to standpipes and to individual houses. This system now supplies Dawley, a small part of Wellington Rural, and the town of Shifnal. The water is very pure and has 16 degrees of hardness. *Much Wenlock.*—The town is supplied from a deep well in the Tannery field. The water is artesian and is derived from the Shale measures of the Wenlock limestone. Owing to deficiency of yield, a deep bore hole was sunk in 1910 alongside the well, but was not successful. Throughout 1912 the yield was sufficient. The *village of Bourton* is supplied by the owner with water raised from a spring to a reservoir by a ram. In the remaining parts of the District, the supply is from pumps and springs. "Coincidently with the laying on of the public supplies the death-rate showed a definite drop, which has been maintained consistently. Another satisfactory feature has been the practical extinction of enteric fever. The association of this disease in the Borough with the use of polluted river water or that of other impure sources has generally been close."

*Sewerage and Drainage—Wenlock Ward.*—“A modern drainage scheme has been carried out for the town of Much Wenlock during the year by the Sanitary Committee, this step, on which the Committee are to be congratulated, marking another decided improvement in the sanitation of the town. The plans were prepared by Messrs. Wilcox, Raikes, & Reed, and after a public enquiry held in August, 1911, a loan of £6,000 was sanctioned for the scheme. The following details of the work are furnished by the Sanitary Inspector and are of interest :—“The tender of Messrs. Boswell, “of Wolverhampton, amounting to £4,932, was accepted. The sewerage works comprised the “laying of 1,090 yards of 12-inch stoneware pipes, and 3,150 yards of 9-inch pipes, with 38 “manholes, 2 flushing chambers, 1 storm overflow, and 14 lampholes. The works at the outfall “comprise a screening chamber of 450 gallons capacity ; a storm tank with capacity of 11,000 “gallons ; two liquefying tanks, capacity 44,000 gallons ; four percolating filters with a super- “ficial area of 540 square yards, upon which the sewage is distributed by means of four rotary “distributors. There are also two sludge beds and a sedimentation tank holding 3,600 gallons.

“The land for the outfall works, some two acres in extent, was given to the town by the Right Hon. C. G. Milnes Gaskell, P.C.

“By the end of the year the works were almost completed, and tenders were being obtained for laying branches for the house connections. The whole work has been carried out under the supervision of Mr. J. T. Roberts, resident engineer.”

In the other towns of the Borough the sewers are old and generally were surface water drains. The outfall of most of the sewers is either directly into the Severn or into streams leading to the Severn. The sewers have no flushing arrangements, and are ventilated through surface water openings.

“As regards these towns and townships of Ironbridge, Madeley, Coalbrookdale, Coalport, Broseley and Jackfield, I have stated my definite opinion that further necessary progress in sanitation depends upon proper sewerage being provided. The Local Government Board and the County Council have been pressing the Sanitary Committees concerned to obtain engineering assistance ‘with a view to ascertaining to what extent the present unsatisfactory condition of the sewerage in these two wards could be remedied at a reasonable cost.’ At the end of the year the Committees were understood to be in communication with firms of engineers.”

“The sewers require to be largely replaced or re-modelled, and extended, in order to provide efficient drainage for the requirements of the District, independently of any question of river pollution.”

*Excrement Disposal and Scavenging.*—Privies of an old and objectionable type are in a very large majority. No general action for their abolition is possible in the absence of suitable sewerage facilities. Five privies were converted to water-closets during the year. “Drained privies of very obnoxious character, are not infrequently met with. Being untrapped and unflushed the drains become very foul and freely ventilate most offensive gases through the closet seats.”

The Madeley Sanitary Committee carry out the scavenging of their district on request. The privies are scavenged on an average less than once a year.

Broseley Sanitary Committee provide a liquid manure cart for privy soil.

*Housing.*—The great majority of the houses are old and difficult to deal with satisfactorily. There is practically no building of new cottages. Many houses lack through ventilation, in some cases being built into the hillsides. “The sanitary surroundings of cottages are very often unsatisfactory, due to the absence of paving of yards, to lack of sewerage or drainage facilities, and very generally to objectionable vault privies.”

*Housing Regulations.*—Eighty-three houses were inspected in 1911 and 32 in 1912. Of these 115, 40 were still under consideration at the end of the year. "If these regulations are to be followed in their intentions, and the powers given by the Housing, Town Planning, etc., Act, are to be used to bring about any real improvements in housing conditions, it will be essential for the Committees to deal more rapidly and effectively with the defects found and recorded, so that a much larger number of inspections may be made. With the class of poor property which is general in the towns, I consider that 200 houses as a minimum should be inspected every year, and every effort made to make the remedying of the worst defects keep pace with the inspection. Even at the rate suggested twelve years at least would be necessary to get round the working class houses in the Borough, and the majority of these would benefit in my opinion by a systematic inspection."

There are special difficulties connected with the lowness of rents and depressed condition of industries. No houses were closed as unfit for habitation during the year.

*Permissive Powers.*—The Infectious Disease (Prevention) Act, 1890, the Public Health Acts Amendment Act, 1890, (except Part IV.), and Parts 2, 3, 4, and 5 of the Public Health Acts Amendment Act, 1907, have been adopted.

By-laws are in force with respect to Common Lodging Houses and Slaughter-houses and also regulations as to Cowsheds, Dairies, and Milkshops.

*Slaughter-houses*—Seventeen in the Borough—not registered; inspected periodically but not specially at times of slaughtering. No tuberculous carcases were found.

*Common Lodging Houses*—Two on the register; frequently inspected.

*Dairies, Cowsheds, and Milkshops*—thirty-three on register. Special attention is paid to their registration and improvement since the regulations were adopted.

## WHITCHURCH (Urban).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	4,783
<i>Population</i>	<i>at 1911 Census</i>		5,757
<i>Number of inhabited houses</i>	„	..	1,314
<i>Number of persons per house</i>	„	..	4.4

### Physical Features and General Character.

"The Urban District lies within the northern border of the County, and comprises a considerable area of agricultural land surrounding the town of Whitechurch. The general elevation varies from about 270 feet to 350 feet above Ordnance Datum. The subsoil is the red marl of the New Red Sandstone. The town occupies the centre and higher part of the District, the fall of the ground being from south and east to west and north-west, and the natural drainage by small brooks leaving the District towards the north-west, as tributaries of the Dee. The centre of the town is old and compact, considerable extensions of more recent buildings existing along some of the main roads radiating from the town. The surrounding parts of the District are entirely rural and agricultural, extending some two or three miles to the north-east and south-west of the town and to about a mile to north-west and south-east. Whitechurch is a market and residential town, and the land around is extensively employed for grazing and dairy farming. It is the centre and market of a large cheese-making industry. There is a brewery, maltings, engineering works, a steam laundry and a creamery. A Secondary School for girls has been erected in the town by the County Council."

Death-rates per 1000 population from

Period.	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.	Infant Death-rate per 1000 Births.	Birth-rate.
1912	16.2	.17	.86	.0	.69	.86	1.38	78	20.0

*Population.*—There was an increase of 536 during the last intercensal period and 289 during the previous one.

The *infantile mortality* rate was favourable. "A large proportion of the infant deaths are due to causes considered to be preventable, and I am of opinion that a system of health visiting under the Notification of Births Act, by which mothers would be advised in the feeding and care of infants, and in the care of their own health, would do good."

*Infectious Disease.*—Eleven cases of scarlet fever and 2 of diphtheria were notified. Five of the cases of *scarlet fever* occurred in March and three of the cases attended Bargates Infant school. The source of infection was not traced. One of the cases of *diphtheria* was contracted outside the District.

There is an arrangement for the free supply of *antitoxin*.

*Measles* was very prevalent and fatal in May, June, and July, and led to the closure of all the elementary schools. There were 7 deaths. "The disease being prevalent and the type severe, it appeared to me that it would be well, if possible, to put into operation the plan referred to in my Annual Report for 1908 (page 113), and approved by the Council, for obtaining the temporary services of a nurse to visit the homes of affected children and advise as to their nursing and isolation. Upon enquiry, however, I found that the Shropshire Nursing Federation was not in a position to supply a nurse under the arrangement proposed some time ago. Failing this I drew up a handbill of advice and caution, which was printed and distributed freely in the District."

*Phthisis.*—Twelve cases were notified and there were 5 deaths. The County scheme for dealing with phthisis is approved and the suggestion made that shelters might be provided by the District Authorities combining.

*Isolation Accommodation.*—There is no isolation hospital for ordinary infectious disease. There is a joint hospital of 8 beds for small-pox at Prees Higher Heath.

*Disinfection* is carried out by the Sanitary Inspector by spraying the rooms. Disinfectants are provided and there is an emergency steam disinfecter.

*Water Supply.*—The water supply was originally from a number of shallow wells sunk into the 'drift' near the pumping station. Some years ago, three bore holes were sunk into beds of sand about half a mile from the drift wells. Owing to the deficiency in supply it was decided in 1908 to seek a new supply in the drift area below the clay holding up the shallow water. "Eleven bore holes and six 3-inch copper tubes were put down to a depth of from 43 to 51 feet, and three new collecting wells were made in brickwork and cement. The result was very good, an additional yield of over 3,000 gallons per hour being secured."

The water is softened to about seven degrees and pumped by steam power to a covered reservoir. Fourteen new houses were supplied during the year and two houses previously supplied by pumps.

*Sewerage and Drainage.*—The town is well sewered on modern lines. Ventilation is by 24 shafts in the town and surface grids in the outer sections, and the sewers are flushed by 5 tanks. The outfall works consist of a septic tank of 25,000 gallons, two smaller tanks and 70 acres of land for irrigation. Some improvements to the outfall sewer and distribution works are contemplated during the present year.

*Excrement Disposal.*—There are 1,028 water-closets, 20 earth or pail closets and 240 privies. Within the town proper there are only 74 privies now. Ten privies were converted to water-closets during the year. Within the last seven years 65 have been converted. "The number now remaining in the town is comparatively small, and the Council should press on their extinction as rapidly as possible."

*Removal of House Refuse.*—"A system of public scavenging was begun by the Council in 1907, and extended year by year till in 1911 it included all the sewered area. Last year it was further extended to include Alkington Road and the Mill Bank. The collection is made weekly during the three summer months, and fortnightly during the rest of the year, but is weekly throughout the year as regards cottage property in the town."

The improvement in cleanliness has been most marked, and the provision of portable ashbins is being pressed.

*Housing.*—Building appears to be keeping pace with the increase of population. In the centre of the town there is crowding of old cottage property in the yards and in one or two narrow streets.

Records of inspection are considered by the Council, but much of the work is done under informal notices. Sixty-two of the houses inspected have been put into repair without closing orders. A notable improvement has recently been effected in two of the old yards.

*Permissive Powers.*—Part III. of the Public Health Acts Amendment Act, 1890, and the Infectious Disease (Prevention) Act, 1890, with the exception of Sections 5, 6, 15, and 17, are adopted. The Public Health Acts Amendment Act, 1907, Parts 2, 3, 4, 5, 6, 7, and 8, has been adopted.

By-laws are in force with respect to Nuisances, New Streets and Buildings, Slaughter-houses, Common Lodging Houses, Tents, Vans, etc., used as habitations.

*Common Lodging Houses*—three on the register; regularly inspected and kept very clean and orderly.

*Slaughter-houses*—seven on the register; inspected for conditions of cleanliness, etc., and at times of slaughtering for inspection of meat. No tuberculous carcases were found. There is one knacker's yard on the register.

*Dairies, Cowsheds, and Milkshops.*—The Model Regulations are in force. There are 24 cowkeepers and milksellers on the register. The premises are inspected periodically and found to be well kept. There is no veterinary inspection of milk cows and no action was taken as to tuberculous milk.

## WHITCHURCH (Rural).

<i>Medical Officer of Health</i>	..	..	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	..	..	.. 11,702
<i>Population</i>	at 1911 Census	..	.. 1,935
<i>Number of inhabited houses</i>	„	..	.. 439
<i>Number of persons per house</i>	„	..	.. 4.4

### *General Character of the District.*

"The District lies within the northern border of the County, adjacent, along its northern boundary, to the Whitchurch Urban District. The general elevation is from 300 to 400 feet O.D., the contour being gently undulating. The subsoil is the red marl of the New Red Sandstone, with the exception of a small area in the south-east, where an outlier of the Lias occurs at Ightfield. There is generally a considerable thickness of morainal drift covering the strata. The natural drainage is by small streams to north and south, the water partings between the Weaver, Dee, and Severn river systems crossing the District. The District is entirely rural in character, and the population scattered, the small villages of Tilstock, Ash, Broughall (all in the large parish of Whitchurch Rural), and Ightfield, comprising the main collection of houses. The land is largely employed for grazing and dairy farming. The District is naturally very healthy, the average death-rates for preceding years being low."

### *Statistics.*

Period.	Death-rates per 1000 population from							Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Epidemic Influenza.	Phthisis.	Other Tuberculous Diseases.	Bronchitis.	Pneumonia (all forms)	Cancer.		
1912	6.7	.0	.52	.0	.0	.52	2.06	83	18.5

The death-rate, 6.7 per thousand for the year, was phenomenally low, and when corrected is only 5.8.

*Infectious Disease.*—Two cases of scarlet fever were notified in one household.

The Council supplies *antitoxin* for the use of poor persons.

*Phthisis.*—Two cases were notified in one house and one was fatal. The County Council's scheme is generally approved and the suggestion made that District Councils might jointly provide shelters, and that they should utilise the nurse-inspector as indicated in the scheme.

*Hospital Isolation.*—There is a joint small-pox hospital at Prees Higher Heath. There is no isolation accommodation for other infectious disease.

*Disinfection.*—The Sanitary Inspector disinfects in nearly all notified cases. A spray apparatus and formalin lamp are provided by the Council. The Council has purchased an emergency steam disinfecter along with the Whitchurch Urban Council.

*Water Supply.*—There is no combined system of supply. *Tilstock.*—There is a public well and pump for this village. The water has a tarry taste derived from 300 yards of suction pipe. This prevents its use. The matter has been under consideration but nothing has been done. *Ash.*—An extension of this supply previously recommended to six houses along Church Road, has now been carried out. *Ightfield.*—Seven houses to the north of the village had a defective supply, but are now conveniently supplied from a well with pump and draw-pipe.

*Drainage and Excrement Disposal.*—“At Broughall is a length of sewer laid and maintained by the Council, taking the drainage from several cottages, two farms, and the school and the school house. The outfall is to a small stream. This outfall is at times the source of nuisance, and an extension of the sewer and improved outfall is desirable and is receiving consideration.”

A length of main sewer has been laid during the year at *Ightfield*. Water-closets and pail closets are few in the district, the houses having mostly privies of the old type with underground vaults. Little conversion of privies has been done in recent years. There is scope for this work, and it is recommended that defective and offensive privies be abolished and pail closets substituted.

*House Accommodation* on the whole is adequate in amount and generally fair. Twenty-five inspections have been made and no houses were found unfit for habitation.

*Permissive Powers.*—The Public Health Acts Amendment Acts, 1890 and 1907, are not adopted. The Infectious Disease (Prevention) Act, 1890, is adopted with the exception of Sections 5, 6, 15, and 17.

By-laws have been made with respect to Private Scavenging, Common Lodging Houses, Nuisances, New Streets and Buildings.

*Slaughter-houses*—two; inspected periodically and occasionally at times of slaughtering. No tuberculous carcases were found.

*Dairies, Cowsheds, and Milkshops.*—Regulations are in force. There are 20 cowkeepers and milksellers on the register.

